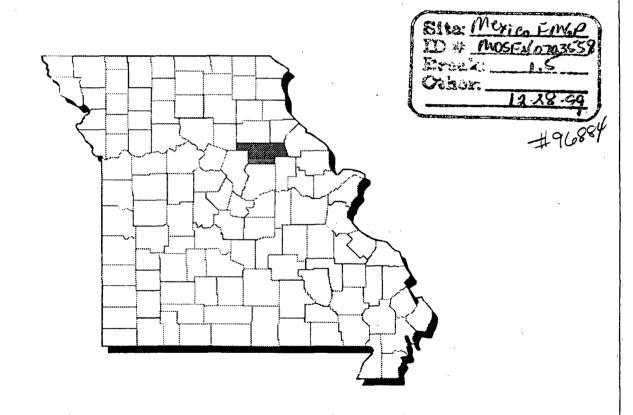
PRE-CERCLIS SITE SCREENING REPORT

Mexico Former Manufactured Gas Plant Audrain County, Missouri

December 28, 1999





Missouri Department of Natural Resources
Division of Environmental Quality
Hazardous Waste Program



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I. PRE-CERCLIS SITE SCREENING NARRATIVE REPORT

MEXICO FORMER MANUFACTURED GAS PLANT (FMGP)

Pre-CERCLIS Site Screening Narrative Report

A. Introduction

The Missouri Department of Natural Resources (DNR), through a Cooperative Agreement (CA V997381-99-0) with the U.S. Environmental Protection Agency (EPA), conducted a Pre-CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) Site Screening (SS) at the Mexico Former Manufactured Gas Plant (FMGP) site in Audrain County, Missouri. The purpose of this investigation was to determine whether the site is eligible for entry onto CERCLIS, EPA's inventory of potential hazardous substance sites that are evaluated under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

The Mexico FMGP site was identified as part of a comprehensive, state-wide effort by the HWP to locate FMGPs in Missouri and to evaluate the potential hazards posed by these sites. Frequently, gas plant buildings and associated structures were demolished, with the resulting demolition debris and waste buried in place. Process residuals typically found at FMGP sites include coal tar, coke, clinker, ash, and spent oxides. Substances such as coal tar contain carcinogenic hazardous substances that can pose a threat to human health if they are accidentally uncovered. The scope of this SS investigation included review of available file information regarding the Mexico FMGP, soil and waste sampling, and historical research. DNR staff conducted a site visit on November 23, 1999 and site sampling on December 2, 1999.

B. Site Description

The Mexico FMGP site is located in the center of town, north of the intersection of S. Western and High Streets. To reach the site from the intersection of U.S. 54 and Clark Street (Business 54), follow Clark Street north into town. At the intersection of Clark and Boulevard, take Boulevard west for about two blocks until you reach S. Western. Follow S. Western north until it intersects with the railroad. The Mexico FMGP site is located at the intersection of High Street and S. Western, just south of the railroad tracks. This location is in the Northwest Quarter (NW ¼) of the Northwest Quarter (NW ¼) of the Southeast Quarter (SE ¼) of Section 26, Township 51 North, Range 9 West in Audrain County, as shown in Figure 1 in Section II. A Site Sketch is presented in Section III; three digital and six standard photographs of the site are shown in Section V.

A comparison of historic Sanborn maps against present day conditions indicates that the bulk of the gas plant operations occurred on property currently owned by Ameren UE. The geographic coordinates of the site, as taken from the center of the Ameren UE property by DNR staff using a Lawrence GlobalMap™ 100 Global Positioning System (GPS) unit, are 39.169583 north latitude and 91.886806 west longitude.

The Ameren UE property is roughly square, bounded south of the railroad right-of-way to the north, S. Western to the west, High Street to the south, and South Olive (formerly S. Franklin) along the east. The property is surrounded by a six-foot high chain link fence with three lines of barbed wire at the top. There are two locked gates at the site; one, in the northeast quadrant of the site, opens to S. Olive (shown in digital photo 2); the other, located in the southwest quadrant, opens to High Street. The property is currently used by Ameren UE for storage. There are no regular employees working at the site; however, at the time of our site visit, there was a considerable amount of activity in the area. The Mexico city water plant, located just south of the Ameren UE property, is undergoing a major renovation.

There is an active electrical substation on the Ameren UE property in roughly the same location as the former gas holder. The substation is enclosed with a separate, internal chain-linked fence (digital photo 1, photos 1 and 6). Ameren UE representatives have indicated that there is a buried, electrified grid in this area, a subsurface structure intended to ground the substation. A similar buried grid is located just east of the current substation, as this was the location of a former substation. However, the buried grid of the old substation is no longer electrified. With the exception of the substation, the only other above-ground structures on-site are a small shed along the western fence and a storage building in the southeast corner of the property.

According to an Ameren UE representative, the primary gas plant building with the boilers and generators was only razed about two years ago. This building was reportedly three stories high with a basement. Refractory brick was used to fill in the excavated area. Fill material from the demolition, such as broken bricks and gravel, is visible across the site (photo 2). This fill material appears to extend for at least 25 feet north of Ameren UE's property line. Reportedly, the Ameren UE property boundaries were temporarily extended in that direction to accommodate large moving equipment during the demolition. In addition, the foundation of the primary gas plant building appears to be at least two to three feet thick, based upon visual observations along S. Western Street.

There is a small area (less than 25 square feet) of surficial soil staining north of the northeast corner of the Ameren UE property (digital photo 3). The staining appeared tar-like and had the faint odor of naphthalene. The stained area is likely on property owned by the railroad. There is also some cinder-like material in this area, which corresponds to the gas plant's coal storage location on the 1932 Sanborn map.

Northwest of the Ameren UE property, there is one other area with apparent tar-like staining. At this location, there is a small driveway leading west from S. Western that appears to correspond with a spray pond (also noted as a cooling or settling pond) on the historic Sanborn maps. The driveway appears to be comprised of tar-like material mixed with asphalt and gravel (photos 3-5). At this time, the ownership of the driveway is not known; it dead-ends after about one block. There is a vacant lot just south of the driveway; a bank operates south of the lot.

The nearest business, a bank, operates south of the lot and southwest of the Ameren UE property. Residential areas lie east and southeast of the Mexico FMGP. St. Brendan's Catholic School, the nearest school, is located within 0.25 miles southeast of the site.

C. Site History/Ownership Information

According to historical information about Audrain County, the gas plant began operations in 1885. On March 20, 1887, the Mexico Electric Light, Heat & Power Company was incorporated to take over the electric distribution system.

In 1894, the gas plant is depicted on a Sanborn fire insurance map as a small plant consisting of one main building roughly 5,000 square feet in size. The eastern half of the building consisted of two horizontal boilers; the western half contained the engine and electrical generator (dynamo) room. A spur of the railroad bordered the northern wall of the main building. A small tool repair shop was located just south of the main building. The site appears very similar in the 1899 Sanborn map, with the exception that the tool repair shop had been converted to a store house.

Between 1899 and 1908, the plant expanded considerably. The 1908 Sanborn map shows that the main building now included three horizontal boilers, at least three engines of varying horsepower, gas generators, and a coke room. A tar well was present south of the coke room. Two gas holders, one large and one small, are shown near the intersection of S. Western and High Streets. It is not clear whether the gas holders were in use at this time, since there are no markings to indicate their capacity.

In 1910, the firm was operating under the name Mexico Power Company. By 1914, the plant consisted of the electric, light, heating, gas plant, and water works. The 1914 Sanborn map indicates that a fourth horizontal boiler had been added within the main building. The larger of the two gas holders was listed as having a capacity of 25,000 cubic feet. The smaller gas holder had been converted to a crude oil tank. A 100,000 gallon above-ground water tank had been added.

In 1920, the name of the plant was changed to the Missouri Utilities Company. Missouri Utilities common stock was acquired by the North American Light and Power Company, and on March 1, 1924, the company name was changed again, to the Missouri Power & Light Company.

The 1926 Sanborn map shows the plant had expanded its holdings to include the entire block of S. Western, High, S. Franklin (now S. Olive) and the railroad. A large cooling and settling basin was located to the northwest of this block; two settling basins with individual capacities of 600,000 gallons and filter plant with a pump house were depicted south of the block. The main building, listed as the power plant, contained six horizontal boilers. South of the power plant, the coke room and gas generators were listed simply as the gas plant.

A pump house had been added just north of the water tank and two small horizontal tanks had been added just south of the gas holder. The tar well is not denoted on the 1926 map.

The 1932 Sanborn map shows that the gas plant property was operated by the Missouri Power & Light Company. The cooling and settling basin was simply listed as the spray pond. The remaining structures remained the same, with the following additions. Two additional, small crude oil holders were added north of the original crude oil holder. Two horizontal above-ground storage tanks were added in the southwest corner of the property. There was a transformer yard just east of the gas holder, and an ash hopper was located in the northeast corner of the property. Coal storage is denoted just north of S. Olive Street, south of the railroad and northeast of the gas plant.

According to historical information, steam heating services were discontinued in 1941. Most of the basic structures of the gas plant remained the same in 1948, according to a facility map, although the function of the plant continued to undergo change at this time. The power plant had existing and new turbine rooms. The gas holder appeared to have been razed, but the foundation was still noted on the facility map. A second, smaller substation is shown to the west of the gas holder foundation, covered the prior location of the largest of the former crude oil tanks. The two smaller crude oil tanks had been converted for use in the transformer system; the horizontal tanks in the southwest corner of the property had been abandoned. The spray pond area had a new cooling tower basin, and appeared to have been undergoing an enlargement that would include a second cooling tower basin. Plans were underway at this time to abandon an existing track hopper (near the rail spur) in favor of a new track hopper and coal elevator pit, depicted just north of the turbine rooms.

The Missouri Power & Light Company retained ownership of the property until a merger with the parent company, Union Electric Company, on December 31, 1983. In 1997, Union Electric and Central Illinois Power Company, Inc. merged to form Ameren Corporation. As a result of this merger, Union Electric is now Ameren UE.

D. Site Reconnaissance/Sampling

On November 23, 1999, DNR staff met with Ameren UE personnel to conduct a site reconnaissance and discuss the upcoming sampling event. At this time, information about the site was also obtained from the Mexico public library and the Mexico historical society.

On December 2, 1999, DNR staff collected seven soil samples from the Ameren UE property. These samples were collected from the 3.5 – 7 foot depth. Two soil samples were collected in the location of a former oil tank storage area (west of the gas holder) and four samples were collected near presumed location of the western wall of the former gas holder. One sample was also collected from the eastern portion of the site, near the east gate, for use as a background sample for purposes of this sampling event. Although this sample was collected from the known site area, and can not be considered a true

background sample, there are no former gas plant structures known to be associated with the east gate. Figure 3, the site sampling map, is shown in Section III. The samples were analyzed for polychlorinated biphenyls (PCBs) and select semi-volatile organic compounds. One sample was also submitted for volatile organic analyses (VOAs). The analytical results are presented in Table 1 in Section IV.

PCBs were not detected in any of the samples. A low level of total xylenes (0.078 parts per million or ppm) was detected in the one sample submitted for VOAs; this sample was also found to contain a small amount (2.70 ppm) of N-nitrosodiphenylamine. Semi-volatile organic compounds known as polycyclic aromatic hydrocarbons (PAHs) were detected in five of the seven samples. Where detected, the amount of total PAHs ranged from 17.60 to 848.20 ppm. Five carcinogenic PAHs were detected on-site at levels that exceed applicable site screening levels: benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene.

Benzo(a)pyrene was detected in five of the seven samples at levels that exceed applicable soil screening concentrations. The amount of benzo(a)pyrene found in the samples ranged from 0.81 – 55 parts per million, amounts that exceed the following reference doses: 0.088 ppm (EPA's Superfund Chemical Data Matrix), 0.68 ppm (Missouri Department of Health's Any-Use Soil Level), and 0.16 ppm (DNR's Cleanup Levels for Missouri – Tier 1, Scenario A).

E. Conclusions

The Mexico FMGP operated for over 50 years near the intersection of S. Western and High Streets in Mexico, Missouri. The bulk of the gas plant operations occurred on property currently owned by Ameren UE. SS sampling data indicates that a portion of subsurface soil at the Ameren UE property is contaminated with hazardous substances associated with the former gas plant operations. The horizontal and vertical extent of this contamination is not known.

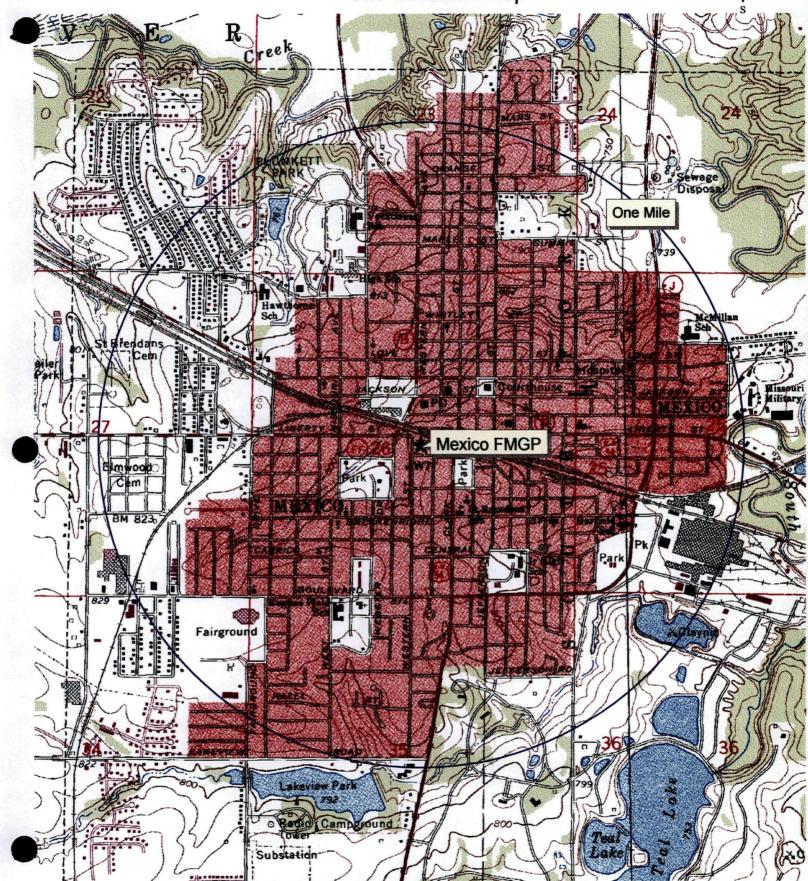
This site is recommended for CERCLIS entry. Additional sampling would aid in further delineating the extent of soil contamination. Shallow soil samples would be beneficial to assess whether Ameren UE employees might be exposed to contaminated surficial soil. Subsurface soil sampling is recommended on the eastern side of the former gas holder. Sampling should also be considered outside of the current Ameren UE property boundaries, near the former spray pond and at the stained soil area to the northeast. These areas are not fenced and access is unrestricted to these locations at this time.

In addition, there is a municipal well in use less than one block south of the Mexico FMGP site, at the city water plant. Further assessment of the contamination will aid in determining whether the groundwater pathway warrants additional consideration.

II. SITE LOCATION MAP

Figure 1 Mexico FMGP Site Location Map





Taken from USGS 7.5 Minute Topographic Quadrangle Maps for Mexico East, Mo. and Mexico West, Mo. Both maps are dated 1972, photorevised 1984.

III. SITE SKETCH AND SITE SAMPLING MAPS



active rail line

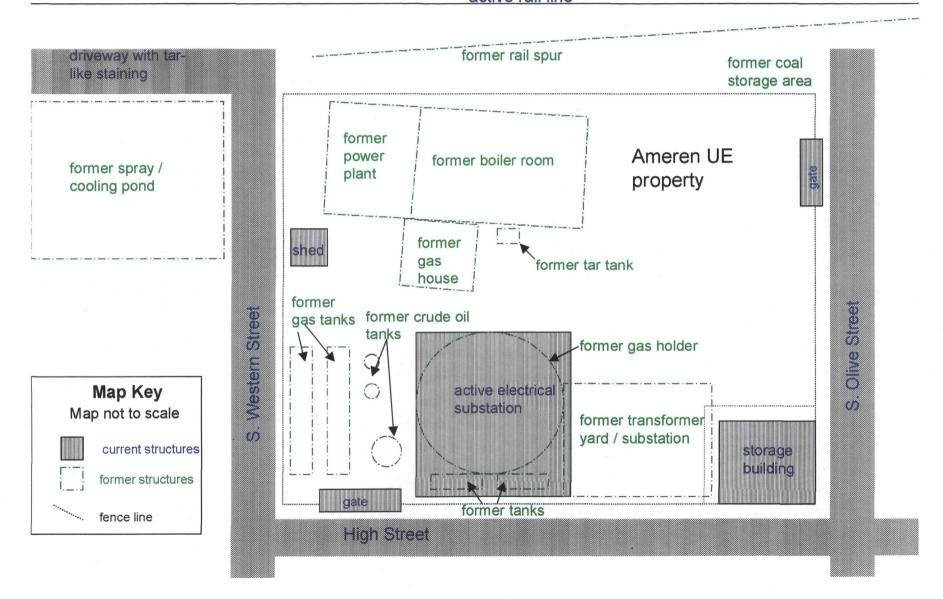
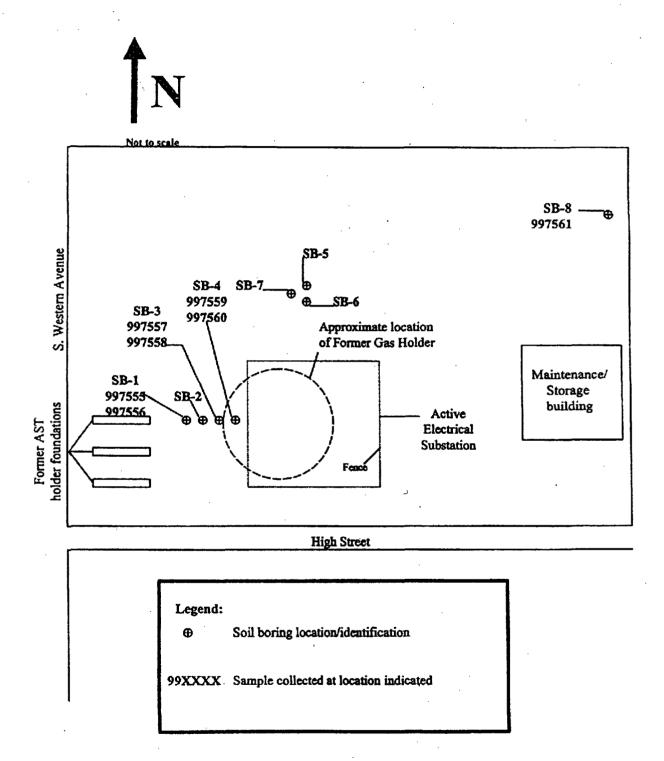


Figure 3 – Mexico FMGP Site Sampling Map



IV. ANALYTICAL DATA TABLE

		Ta	ble 1. Mexic	o FMGP - S	S Soil Samp	ling Data									
		Sa	imples Collec	ted by DNR	on December	2, 1999									
Select Parameters	997555	997556	997557	997558	997559	997560									
	SB-1	SB-1	SB-3	SB-3	SB-4	SB-4	SB-8	Health-Based	Department of	Levels - Tier 1					
All values in parts per	25 feet west of	25 feet west of	near west	near west	gas holder,	gas holder,	east gate;	Benchmark	Health Any-Use	Scenario A					
million (ppm)	gas holder, near	gas holder, near	edge of gas	edge of gas	western	western	east of		Soil Level						
	crude oil tank	crude oil tank	holder	holder	portion	portion	gas works	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1							
Depth of Sample (feet)	3.5 - 4	5.5 - 6	3.5 - 4	5.5 - 6	3.5 - 4	6.5 - 7	3.5 - 4	1996	1996	1998					
POLYCHLORINATED BIPI	HENYLS (PCBs)	237234511111													
PCBs (total)	ND	ND	ND	ND	ND	ND	ND	0.083	0.65	0.60					
VOLATILE ORGANIC CON	POUNDS (VOCs)														
Total Xylenes	NA	NA	NA	0.078	NA	NA	NA	160,000.00	480.00	55.00					
POLYCYCLIC AROMATIC	HYDROCARBONS	S (SELECT PARA	METERS)												
N-Nitrosodiphenylamine	<0.25	<0.25	<0.50	2.70	<0.25	<0.25	<0.25	NA	1,000.00	3.03					
Naphthalene	<0.25	<0.25	3.00	0.75	40.00	<0.25	<0.25	3,100.00	230.00	5.30					
2-Methylnaphthalene	1.70	2.50	3.30	0.54	42.00	<0.25	<0.25	NA	NA	NA					
Acenaphthylene	2.70	1 30	3.60	3.40	14.00	<0.25	<0.25	NA	NA	NA					
Acenaphthene	0.54	<0.25			3 10	<0.25	<0.25	4,700.00	3,400.00	1,190.00					
Dibenzofuran	0.43				3.10	<0.25	<0.25	NA	NA	NA					
Fluorene	3.40		14.00	9.70	13.00	<0.25	<0.25	3,100.00	2,300.00	940.00					
Phenanthrene	9.40		150.00*	13.00	39.00	<0.25	<0.25	NA	NA	NA					
Anthracene	3.40		30 00	8.60	19 00	<0.25	<0.25	23,000.00	17,000.00	16,700.00					
Fluoranthene	7.30		***************************************	93.00*	17.00	<0.25	<0.25	3,100.00	2,300.00	600.00					
Pyrene	13.00		220.00*	150.00*	28.00	<0.25	<0.25	2,300.00	1,700.00	2,110.00					
Benzo(a)anthracene	3,60	**************************************		21.00	6,70	<0.25	<0.25	0.88	4.50	1.10					
Chrysene	2.50	***************************************	51.00	21.00	4 50	<0.25	<0.25	88.00	160.00	36.00					
Benzo(b)fluoranthene	3.20	***************************************	39,00	18.00	5,00	<0.25	<0.25	0.88	4.00	0.94					
Benzo(k)fluoranthene	1.60	***************************************	32,00	15.00	3.00	<0.25	<0.25	8.80	34.00	8.00					
Benzo(a)pyrene	4.80		55.00	30.00	8.40	<0.25	<0.25	0.088	0.68	0.16					
Dibenz(a,h)anthracene	0.59		7.20	2.80	1,40	<0.25	<0.25	0.088	0.62	0.15					
Benzo(g,h,i)perylene	1.10	<0.25	13.00	4.70	1.90	<0.25	<0.25	NA NA	NA	NA					
Indeno(1,2,3-cd)pyrene	0.90	<0.25	11,00	5.80	1.80	<0.25	<0.25	0.088	0.68	0.16					
Total PAHs	60.16	17.60	848.20	412.09	250.90	0.00	0.00								

ND = non-detect; NA = not analyzed or not applicable. * - Value is estimated. Shaded values were detected in concentrations greater than three times background level or were above background (if background is non-detect). Values in bold also exceed all applicable soil screening values used in the table.

V. PHOTOGRAPHS

Mexico FMGP, Audrain County, Missouri Photographs taken by Julie Kelsey, Superfund, DNR November 23, 1999



Photo 1 (digital). This picture was taken from inside the east exterior fence line of the Ameren UE property, looking west at the active substation. This photo shows the area where the gas holder was once located. The building in the background, a bank, is the nearest operating business to the Mexico FMGP site.

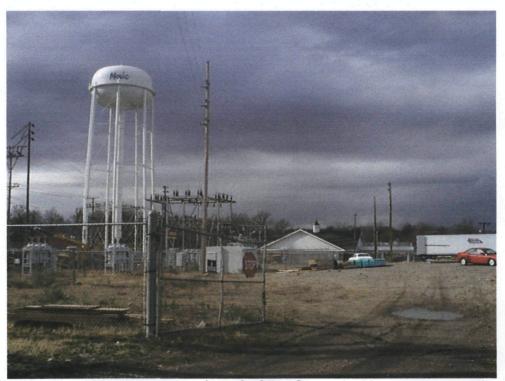


Photo 2 (digital). This picture was taken from S. Olive Street, looking west across the Ameren UE property. The red car in the photo is parked where the boilers were once located in the main building of the former gas plant.

Mexico FMGP, Audrain County, Missouri Photographs taken by Julie Kelsey, Superfund, DNR November 23, 1999

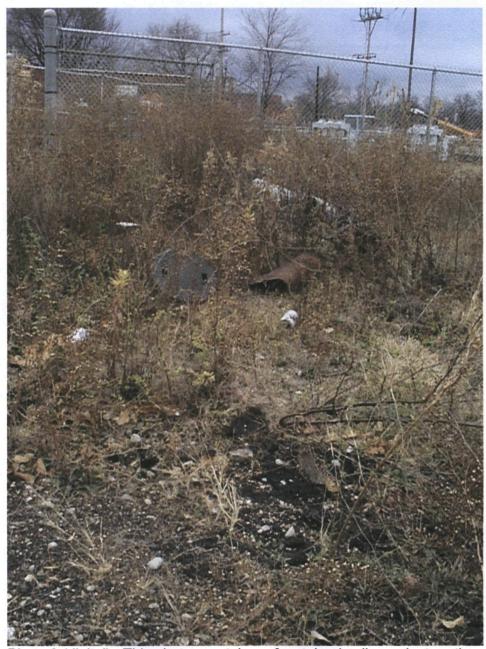


Photo 3 (digital). This photo was taken of a stained soil area just northeast of the Ameren UE property. This location was marked as a coal storage area on the 1932 Sanborn map of the former gas plant.







Audion JBK

Mexico Former Manufactured Gas Plant. -Linn County, MO. Photo taken on 12/2/99 by Julie Kelsey, Superfund, DNR. This photo was taken from the southeast corner of the interior fence that surrounds the electrified substation, looking west toward the likely location of the buried gas holder. The nearest operating business, a bank, is shown in the background. Photo 1

MBK

Mexico Former Manufactured Gas Plant. Linn County, MO. Photo taken on 12/2/99 by Julie Kelsey, Superfund, DNR. This picture was taken from the southwest corner of the Ameren UE property, looking east toward the operational electrical substation. Joe Boland and Brian Allen, of DNR.

and Mark Bryant, of Ameren UE, are in the photo. Photo 6

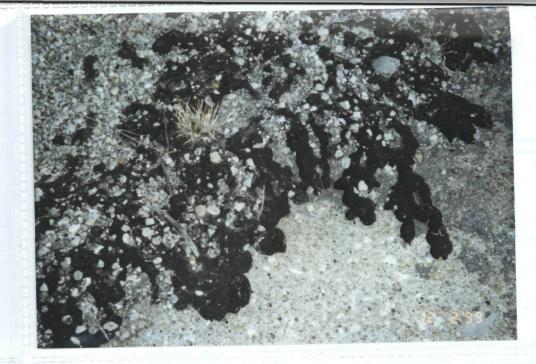
MA

Audiain JOK

Mexico Former Manufactured Gas Plant. Linn County, MO. Photo taken on 12/2/99 by Julie Kelsey, Superfund, DNR. This photo shows an abandoned tank foundation located in the SW corner of the Ameren UE property, as shown in a 1949 diagram of the plant. Taken looking NE across the site, this picture also shows the former location of the main gas plant building. The active rail line is in the background. Photo 2

- BK







Audrain JOK

Mexico Former Manufactured Gas Plant. Linn County, MO. Photo taken on 12/2/99 by Julie Kelsey, Superfund, DNR. This picture shows what could be coal-tar residuals on a driveway northwest of the current Ameren UE property, near the location of the former spray pond. Photo 3

Mexico Former Manufactured Gas Plant. Linn County, MO. Photo taken on 12/2/99 by Julie Kelsey, Superfund, DNR. This picture was taken from the roadway with the tar-like material looking southeast toward the current Ameren UE

property. Photo 5

ABK

Aydran Jok

Mexico Former Manufactured Gas Plant. Linn County, MO. Photo taken on 12/2/99 by Julie Kelsey, Superfund, DNR. This picture was taken from the roadway with the tar-like material, looking southeast. The bank and base of the city water tower are in the background. The vacant lot in the foreground may have been the former location of the spray pond. Photo 4

VI. PRE-CERCLIS SCREENING FORM

I. SITE NAME AND LO	CATION					
NAME: Mexico FMGP	ALIAS:	Mexico	Electric Light \	Works, Missouri L	ight & Power Co.	
ADDRESS OR OTHER LOC	ATION IDENTIFIER: S. We	estern A	ve. & High Stre	et		
CITY: Mexico	COUNTY: Audrain		STATE: Misso	ouri	ZIP : 65265	
DIRECTIONS TO SITE: To reach the site from the intersection of Clark and Bou Western north until it intersect Western, just south of the rail MAP ATTACHED:	ersection of U.S. 54 and Cl levard, take Boulevard wes its with the railroad. The M	t for abo	out two blocks u	intil you reach S. \	Western. Follow S.	
II. SITE REFERRAL IN	FORMATION					
REFERRED BY: Kimberlee I	Foster, HWP/Superfund		,	DATE OF REFE	ERRAL: June 4, 1999	
REASON FOR REFERRAL (DNR personnel identified FM associated with FMGP sites of substances. MAILING ADDRESS: Misson	GP structures at this location often include coal tar, coke,	clinker,	ash, and spen	t oxides, which ma	ay contain hazardous	
	un Department of Natural R	esource	7.2.			
Y: Jefferson City			STATE: Miss	ZIP : 65102-0176		
TELEPHONE: (573) 751-862			FAX: (573) 75	51-7869		
III. SITE INFORMATIO	<u>N</u>				ma Va comprair	
TYPE OF FACILITY: FMGP;	functional electrical substa	ation	TYPE OF OW	/NERSHIP: privat	e, utility company	
OWNER NAME, MAILING A	DDRESS: Ameren UE, On	e Amer	en Plaza, 1901	Chouteau Avenue		
CITY: St. Louis			STATE: Miss	ouri	ZIP: 63166-6149	
TELEPHONE: (314) 554-234 Bryant, Supervising Engineer Environmental, Safety & Hea	r – Waste Management	1ark	FAX: (314) 55	54-4182		
OPERATOR NAME (if differ	rent from owner), MAILIN	G ADDF	RESS: Ameren	UE, 1300 W. Libe	rty	
CITY: Mexico			STATE: Missouri		ZIP : 65265	
TELEPHONE: (573) 473-5048 (this number reaches Clay Taliaferro, District Superintendent – Gas)			FAX: (573) 473-5023			
CURRENT SITE STATUS: FMGP Buildings YN YEARS OF OPERATION: at least 50 FMGP Occupied YN						
FMGP OPERATIONAL HIST	ΓORY:					
Time of gasification proces			•			

FMGP OPERATIONAL HISTORY (continued):

Are there existing buildings/structures/foundations that remain from FMGP operations? Explain.

There are no remaining structures on-site from the time of the FMGP operations. The primary gas plant building with the boilers and generators was razed only a few years ago. The gas holder is thought to have been dismantled by 1948, although the foundation remained at that time. Today, the foundation of the gas holder is not visible; it is thought to be buried beneath an operational substation. Three foundations are visible in the southwest corner of the property; these foundations supported above-ground storage tanks (ASTs) that were on-site during the later operations of the gas plant. The exact relationship of the ASTs to the primary gas plant operations is not known at this time.

Is there evidence of any waste remains on the surface soils (e.g. prussian blue, dried tar, etc)? Explain.

Surficial soil contamination was not observed on the Ameren UE property, where the bulk of the gas plant operations occurred. However, there is a small area (less than 25 square feet) of surficial soil staining north of the northeast corner of the Ameren UE property. The staining appeared tar-like and had the faint odor of naphthalene. There is also some cinder-like material in this area, which corresponds to the gas plant's coal storage location on the 1932 Sanborn map.

Northwest of the Ameren UE property, there is one other area with apparent tar-like staining. At this location, there is a small driveway leading west from S. Western that appears to correspond with a spray pond (also noted as a cooling or settling pond) on the historic Sanborn maps. The driveway appears to be comprised of tar-like material mixed with asphalt and gravel.

Years of Sanborn Maps utilized for report [if available (attach)]: 1894, 1899, 1908, 1914, 1926, 1932

Years of Bird's Eye Aerial Maps utilized for report [if available (attach)]: None

OWNERSHIP HISTORY

List past owners/operators of the site:

The following list is not known to be conclusive: Mexico Electric Light, Heat & Power Company, Mexico Power Company, Missouri Utilities Company, North American Light and Power Company, Missouri Power & Light Company, Union Electric Company, Ameren UE

Do any of the past owners comprise a utility in operation today?

Ameren Corporation, is the parent company of Ameren UE, which is an operational utility.

Other historical references utilized for this report (e.g. interviews, historical society, etc):

In addition to the Sanborn maps, the following sources of information were obtained: a 1948 map of the plant provided by Ameren UE personnel and historical information obtained from the Mexico public library and the Mexico historical society.

IV. CERCLA APPLICABILITY
1. IS THERE A RELEASE AS DEFINED BY THE NCP? YES X NO
EXPLAIN: Coal tar residuals, resulting from the operation of the gas plant, have been detected on-site. Coal tar contains carcinogenic hazardous substances.
(A RELEASE is defined as any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment of barrels, containers, and other closed receptacles containing any hazardous substances or pollutant or contaminant), but excludes: workplace exposures; engine exhaust emissions; nuclear releases otherwise regulated; and the normal application of fertilizer. For purposes of the NCP, release also means threat of release.[40 CFR 300.410(e)]
2. IS THE SOURCE A FACILITY OR VESSEL AS DEFINED BY THE NCP? YES _X NO
EXPLAIN: The source is an FMGP, which meets the definition of a facility.
(A FACILITY is defined as any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or POTW), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft or any site or area, where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in psumer use or any vessel. A VESSEL is defined as any description of watercraft or other artificial contrivance used, or capable of being used, means of transportation on water other than a public vessel. [40 CFR 300.410(e)]
3. DOES THE RELEASE INVOLVE EITHER A HAZARDOUS SUBSTANCE, POLLUTANT OR CONTAMINANT AS DEFINED BY THE NCP? YES_X_ NO
EXPLAIN: Carcinogenic hazardous substances, such as benzo(a)pyrene and benzo(b)fluoranthene, have been detected in soils on-site.
(A HAZARDOUS SUBSTANCE means any substance, element, compound, mixture, solution, hazardous waste, toxic pollutant, hazardous air pollutant, or imminently hazardous chemical substance or mixture designated pursuant to the CWA, CERCLA, SDWA, CAA or TSCA. The term does not include petroleum products, natural gas, inquired pursuant to the CWA, CERCLA, SDWA, CAA or TSCA. The term does not include petroleum products, natural gas liquids, liquefied natural gas, synthetic gas or mixtures of natural and synthetic gas. The definition of POLLUTANT or CONTAMINANT includes, but is not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions or physical deformations, in such organisms or their offspring. The term does not include petroleum products, natural gas, natural gas liquids, liquefied natural gas, synthetic gas or mixtures of natural and synthetic gas.).[40 CFR 300.410(e)]
4. IS THE RELEASE SUBJECT TO THE LIMITATIONS ON RESPONSE? YES NO_X_
EXPLAIN: The release does not meet the criteria for the limitations on response.
(The LIMITATIONS ON RESPONSE provisions of the NCP (40 CFR 300.400(B) states that removal shall not be undertaken in response to a release: of a naturally occurring substance in its unaltered or natural form; from products that are a part of the structure of, and result in

the system through ordinary use.).[40 CFR 300.410(e)]

osure within, residential buildings or business or community structures; or into public or private drinking water supplies due to deterioration

IV. CERCLA APPLICABILITY (continued)
5. IS THERE A POTENTIAL FOR OTHER FEDERAL OR STATE RESPONSE MECHANISMS? IF SO, IDENTIFY THE APPROPRIATE PROGRAM: YES NO_X_
RCRA NRC FIFRA UST OTHER FEDERAL () OTHER STATE DEFERRAL STATE VCP
EXPLAIN:
V. PATHWAY EVALUATION
1. SOURCE AND WASTE CHARACTERISTICS (known or suspected)
SOURCE TYPES AND LOCATIONS: coal tar and residuals associated with FMGP operations
SIZE OF SOURCES: The gas holder had a capacity of 25,000 cubic feet. There was also a spray pond, a tar tank (or well), and several crude oil tanks on-site at one time.
WASTE TYPES AND QUANTITIES (utilize Brown's Directories & show calculations, if possible): The quantity of waste generated is not known at this time.
HAZARDOUS SUBSTANCES PRESENT: Eighteen PAHs, total xylenes, N-nitrosodiphenylamine
2. GROUNDWATER USE AND CHARACTERISTICS WITHIN FOUR MILES
GENERAL HYDROLOGY: Alluvium and loess over Pennsylvanian shale, limestone and sandstone
ARE KARST FEATURES PRESENT ON OR NEAR SITE: No
DEPTH TO SHALLOWEST GROUNDWATER: Nearby municipal wells are cased at about 400 feet below ground surface.
GROUNDWATER WELLS WITHIN 4 MILES: PRIVATE WELLS MUNICIPAL WELLS_5_ INDUSTRIAL/AGRICULTURAL WELLS
LOCATIONS AND POPULATIONS SERVED (if known): The Mo-American – Mexico public water supply serves about 11,414 people in the Mexico area.
DISTANCE TO NEAREST DRINKING WATER WELL: The Mo-American – Mexico Well #2 is less than one block south of the site.
3. SURFACE WATER USE AND CHARACTERISTICS
IS SITE IN A FLOOD PLAIN: No
DISTANCE TO NEAREST SURFACE WATER; IF WITHIN TWO MILES, FILL OUT SURFACE WATER PATHWAY: Overland drainage from the site likely enters the storm sewer southwest of the property. However, it could also flow northwest, to enter Town Branch, an intermittent stream. Town Branch travels north and east through Mexico, to enter the South Fork of the Salt River within two miles.

DRINKING WATER INTAKES PRESENT WITHIN 15 DOWNSTREAM MILES: YES NO_X
IF YES, LIST LOCATIONS AND POPULATIONS SERVED (if known):
ARE FISHERIES, SENSITIVE ENVIRONMENTS OR WETLANDS PRESENT WITHIN 15 DOWNSTREAM MILES: YES_X NO
(List significant features, if known or applicable): There are wetland areas along the South Fork of the Salt River downstream of the site.
4. SOIL AND AIR EXPOSURE CHARACTERISTICS
NUMBER OF PEOPLE LIVING WITHIN 200 FEET OF SITE: Unknown, estimated to be less than 10.
SCHOOLS OR DAYCARES WITHIN 200 FEET OF SITE: None
GENERAL POPULATION WITHIN 4 MILES (rural, small city, heavy urban area, etc.): small city
NUMBER OF WORKERS ON-SITE: There are no full-time workers on-site. Ameren UE employees do use the property for equipment storage.
ARE ANY TERRESTRIAL SENSITIVE ENVIRONMENTS AND/OR WETLANDS PRESENT ON-SITE: YES NO_X_
SITE ACCESS RESTRICTED: Most of the site is surrounded by a chain-linked fence; however, based upon visual observations, contamination extends outside of the fenced area.
VI. SUPERFUND SITE SCREENING CRITERIA
1. DOES THE QUANTITY OR CONCENTRATION OF HAZARDOUS SUBSTANCES WARRANT RESPONSE? YES_X_ NO
EXPLAIN: Five carcinogenic polycyclic aromatic hydrocarbons (PAHs) were detected in soils on-site at concentrations that exceed the Missouri Department of Health's Any-Use Soil Levels (ASLs) and the U.S. Environmental Protection Agency's Superfund Chemical Data Matrix (SCDM) reference values for surficial soils.
[40 CFR 300.410(e)]
2. HAS A PRP BEEN IDENTIFIED? YES_X_ NO
EXPLAIN: Ameren UE is the current property owner.
[40 CFR 300.410(e)]
3. IS THERE AN ACTUAL OR POTENTIAL EXPOSURE TO HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS? YES_X_NO
EXPLAIN: Hazardous substances are known to be present in subsurface soils at the Ameren UE property. The extent of contamination is not known.

4. IS THERE AN ACTUAL OR A POTENTIAL THREAT FOR CONTAMINATION OF DRINKING WATER SUPPLIES?
YES _X _ NO
EXPLAIN: The nearest drinking water well, a municipal water supply well, is located less than one block south of the site. Although the well is cased to 400 feet below ground surface, there is a potential threat to this water supply.
5. ARE THERE HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS IN DRUMS, BARRELS, OR BULK STORAGE CONTAINERS?
YES NO_X_
EXPLAIN: The primary source of contamination at this site is buried coal tar residuals from past manufactured gas plant operations. No other likely sources of contamination were identified during the SS investigation.
6. ARE THERE HIGH LEVELS OF HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS IN SURFACE SOILS?
YES NO
EXPLAIN: Unknown. No surficial soil samples were collected as part of the SS investigation.
(□High levels□ may be determined by streamlined risk assessments, health consultations, state or federal soil screening criteria, and/or Superfund program policies or directives)
7. ARE THERE CONDITIONS ON SITE WHICH MAY BE SUSCEPTIBLE TO IMPACT FROM ADVERSE WEATHER CONDITIONS?
YES_X_ NO
EXPLAIN: Heavy rains could wash potentially contaminated soil from the site.
8. IS THERE A THREAT OF FIRE OR EXPLOSION?
YES NO_X_
EXPLAIN: The primary types of contaminants identified were PAHs, which do not present a fire or explosion threat.
9. ARE THERE OTHER SITUATIONS OR FACTORS WHICH WARRANT FURTHER SUPERFUND RESPONSE?
YES NO_X_
EXPLAIN:

VII. SUPERFUND SITE SCREENING FINDINGS AND RECOMMENDATIONS

NO FURTHER SUPERFUND RESPONSE ACTION REQUIRED - SUPERFUND CERCLIS ENTRY NOT WARRANTED

Cite the appropriate criteria below as the basis for the above determination.

NO RELEASE OR THREAT OF RELEASE	NO AIR PATHWAY THREAT
NOT A FACILITY OR VESSEL	NO THREAT OF FIRE OR EXPLOSION
NO ACTUAL OR POTENTIAL EXPOSURE THREATS	DRUMS, BARRELS OR BULK CONTAINERS NOT PRESENT
NO GROUNDWATER PATHWAY THREAT	SITE NOT SUSCEPTIBLE TO ADVERSE WEATHER CONDITIONS
NO SURFACE WATER PATHWAY THREAT	SITE SUBJECT TO RESPONSE LIMITATIONS
NO DIRECT SOIL EXPOSURE PATHWAY THREAT	WILLING/CAPABLE PRP RESPONSE
NO HIGH LEVELS OF CONTAMINANTS IN SURFACE SOILS	REFERRED TO ANOTHER PROGRAM

COMMENTS:

VI. SUPERFUND SITE SCREENING FINDINGS AND RECOMMENDATIONS (continued)								
REMOVAL ACTION RECOMMENDED:EMERGENCYTIME-CRITICALNON-TIME-CRITICAL								
Cite one or more of the conditions or factors below as a basis for recommending that a removal action be conducted.								
	EXPOSURE TO HAZARDOUS SUBSTANCES OR POLLUTANTS OR CONTAMINANTS ADVERSE WEATHER IMPACTS							
	d	CONTAMINATED DRINKING WATER		FIRE/EXPLOSION THREAT				
		CONTAMINATED SOIL		NO OTHER RESPONSE MECHANISM				
		DRUMS, BARRELS OR CONTAINERS		OTHER FACTORS				
COI	мме	NTS:						
(Con	nplete	Removal Evaluation Form for sites recommended for a Removal	Action	n.)				
X	AE	DDITIONAL INTEGRATED ASSESSMENT REC	COM	MENDED				
Cite	the	appropriate criteria below as a basis for recommendi	ng th	nat additional site evaluation be performed.				
	x	THERE HAS BEEN A RELEASE OF HAZARDOUS SUBSTANCES, POLLUTANTS OR CONTAMINANTS		DRUMS, BARRELS OR CONTAINERS ARE, OR MAY BE, PRESENT				
	x	THERE IS A GROUNDWATER PATHWAY THREAT	x	CONTAMINANTS MAY BE PRESENT IN SUFFICIENT QUANTITY AND/OR CONCENTRATION				
		THERE IS A SURFACE WATER PATHWAY THREAT	х	THERE IS AN ACTUAL OR POTENTIAL EXPOSURE THREAT				
		THERE IS A DIRECT SOIL EXPOSURE PATHWAY THREAT		THERE IS, OR MAY BE, A THREAT OF FIRE OR EXPLOSION				
	x	THERE ARE, OR MAY BE, HIGH LEVELS OF CONTAMINANTS IN SURFACE SOILS	x	THE SITE IS SUSCEPTIBLE TO ADVERSE WEATHER CONDITIONS				
		THERE IS AN AIR PATHWAY THREAT		THERE ARE NO WILLING/CAPABLE PRPS WILLING TO RESPOND AT THIS TIME				
		THERE ARE ENDANGERED SPECIES, WETLANDS, OR OTHER SENSITIVE ENVIRONMENTS WHICH MAY BE IMPACTED BY		CERCLA LIMITATIONS ON RESPONSE PROVISIONS DO NOT APPLY				

ADDITION	IAL INTEGRATED ASS	ESSMENT RECOMMENDED (con	tinued)	
01	HERE ARE NO OTHER FED THER RESPONSE MECHAN D INVESTIGATE THE SITE			
O	THER (DESCRIBE):			
This site is		entry. Additional sampling would aid i		
contaminated should also stained soil a In addition, t	d surficial soil. Subsurface so be considered outside of the area to the northeast. These here is a municipal well in us essment of the contamination	uld be beneficial to assess whether Amer I sampling is recommended on the eastern current Ameren UE property boundaries areas are not fenced and access is unresteless than one block south of the Mexico will aid in determining whether the ground	n side of the former near the former s tricted to these local FMGP site, at the	gas holder. Sampling spray pond and at the ations at this time. city water plant.
PREPARED BY		SIGNATURE: B.	Usey	DATE: 12/28/99
REVIEWED BY:	: Julieann Warren	signature: Julieann	Varien	_ date:/2/30/99
APPROVED BY	: Gary T. Behrns	SIGNATURE	\mathcal{L}	DATE: 1/3/00
NAME	Gary 1. Dellins	SIGNATURE:		DATE: 1/0/00

VII. ORIGINAL ANALYTICAL SAMPLE RESULTS



SOURI DEPARTMENT OF NATURAL RESOURCES DIVISION OF ENVIRONMENTAL QUALITY

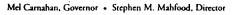
FIELD SHEET AND CHAIN OF CUSTODY RECORD

COLLECTOR'S NAME AND AFFILIATION (PLEASE PRINT)				DESCRIPTION OF SHIPMENT						JECT /
BR	LIAN ALLEN MANIZ-ES	P	NUM	NUMBER OF SAMPLES 5						R /
,5.	THE PLECE OF THE PROPERTY OF T		NUM	NUMBER OF CONTAINERS			•			.b /
SUPE	RFUND		ном	SEALED	HAND CA	eri E		_ 	COL)E
COLLE		CTED					NALYSE		/	
NUMBER	SAMPLE DESCRIPTION	DATE	TIME	ANALYSES REQ	UESTED					SITE CODE
997555	Mexico FMGP site; Audiain Co; Soil girl of SB-01 (3.5-461) Is cited 124+ ost of northernmost visible tank support	12/2/	10/5	BNAS; PCB					45	9197
937556	Maxico FMGP s. Le, Audiain Co; Soil 3106 of SB-01 (5.5-64)	12/29	1038	Same no 99		-	·		1	
997557	Maxies FMGP site; Audiain Co; Soil girls of 5B. 03 (3.5-45) located 37 ft each of northein- most visible took support	12/2/95	1100	Some as 99	7555		-			11 /:
	Maxica FMGP site-Auditanto; Soilgiab of 5B-03 (5:5-65)	15	1	5 and as 4 + VOA's	97555				11	*
997559	Mayics FMCP 5.te; A.dimin Co; 5-11 grab at 5B-04 (3.5-4ft) Iscated 5-ft east of 5B-03		4	5 aue 00 99	7555				,	,,
CHAIN OF CUSTOD	YRECORD			IF SHIPPED			DELIV	ERED	PICKI	ED UP
RECTNOUISHED BY	RECEIVED BY COOL		DATE	TIME CARRIER		-	DATE	TIME	DATE	TIME
SEALED	SHIPPED SEALED DIVING		12/0	19/4:45						
RELINQUISHED BY	RECEIVED BY	•		CARRIER						
SEALED	SHIPPED SEALED									
RELINQUISHED BY	RECEIVED BY			CARRIER						
SEALED	☐ SHIPPED ☐ SEALED									



OURI DEPARTMENT OF NATURAL RESOURCES DIVISION OF ENVIRONMENTAL QUALITY FIELD SHEET AND CHAIN OF CUSTODY RECORD

COLLECTOR'S NAME	AND AFFILIATION (PLEASE F	PRINT)	0	1		DESCR	IPTION OF SHIPMENT				PRO	JECT /
/3R1A	~ ALLEN	MDNR-E	55	NUMBI	ER OF SAMPL	LES D	Z				OF	/
, ,				NUMBI	ER OF CONTA	·····	2				FIEL	/
54	PERFUND	•		HOW S	EALED	>	HAND	- A R R			COD	DE /
NUMBER SAMPLE DESCRIPTION DATE		COLLE	CTED		,		`	FIELD ANALYSES			/	
		DATE			NALYSES REQ	UESTED					CODE	
997560	Mexico FMC Soll grob of	6P S.tr. Audrance 5B-04 (6.5-74+)	12/29	1/35		s; PCBs	icable	1.5				071/ 4147
997561	Moxics FM6 5.1 giob of located lo'me post for eas	PS.tr. Audia. Co; SB-08 (3.5-4ft) st of sortzein gate tentioner to site	12/99	1,25	5am	o os 59	37560				11	/ 1
·	,					4.						
							٠.					
:		·										
CHAIN OF CUSTOD	Y RECORD				ı	IF SHIPPED		I	DELIVE	RED	PICKE	D UP
RELINQUISHED BY	SKIPPED	RECEIVED BY Mare		DATE 12/1	TIME (CARRIER		DA	TE	TIME	DATE	TIME
RELINQUISHED BY	/	RECEIVED BY			1	CARRIER						
SEALED	SHIPPED	SEALED									<u> </u>	
RELINQUISHED BY		RECEIVED BY				CARRIER						
SEALED	☐ SHIPPED	SEALED										~
10 780-0320 (11-88)		DISTRIBUTE 1945 WI	HITE I AD CO	EDVICE BROC	DAM CANAR	V-SAMDI ED			// 1	SE DEVEDS	SE SIDE FOR	DEMARKS





T OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102-0176

RECEIVED

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

DEC 2 2 1999

Sample Number: 997555 Lab Number: 99-D3236

HAZARDOUS WASTE FROGRAM
MISSOURI DEPARTMENT OF
NATURAL RESOURCES

12/17/99 12/ 2/99 12/ 2/99

Report Date:

Date Collected:

Date Received:

Reported To: BRIAN ALLEN

Affiliation: ESP

Project Code: 4071/9197

•

Sample Collected by:

Sampling Location: Sample Description: BRIAN ALLEN, ESP

MEXICO FMGP SITE, SOIL GRAB OF SB-01 (3.5-4 FT) LOCATED 12 FT

EAST OF NORTHERNMOST VISIBLE TANK

SUPPORT AUDRAIN

County:

Analysis Performed	Results		Analyzed	Method
BNA Results:				
Phenol	< 250	ug/kg	12/ 9/99	8270
bis(-2-Chloroethyl)Ether	< 250	ug/kg	12/ 9/99	8270
2-Chlorophenol	< 500	ug/kg	12/ 9/99	8270
1,3-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
1,4-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
N-nitrosodimethylamine	< 250	ug/kg	12/ 9/99	8270
1,2-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
2-Methylphenol	< 250	ug/kg	12/ 9/99	8270
bis(2-Chloroisopropyl)Eth	< 250	ug/kg	12/ 9/99	8270
4-Methylphenol	< 250	ug/kg	12/ 9/99	8270
N-Nitro-Di-n-Propylamine	< 250	ug/kg	12/ 9/99	8270
Hexachloroethane	< 250	ug/kg	12/ 9/99	8270
Nitrobenzene	< 250	ug/kg	12/ 9/99	8270
Isophorone	< 250	ug/kg	12/ 9/99	8270
2-Nitrophenol	< 250	ug/kg	12/ 9/99	8270
2,4-Dimethylphenol	< 250	ug/kg	12/ 9/99	8270
Benzoic Acid	< 250	ug/kg	12/ 9/99	8270
bis(2-Chloroethoxy)Methan	< 250	ug/kg	12/ 9/99	8270
2,4-Dichlorophenol	< 250	ug/kg	12/ 9/99	8270
1,2,4-Trichlorobenzene	< 250	ug/kg	12/ 9/99	8270
Naphthalene	< 250	ug/kg	12/ 9/99	8270
4-Chloroaniline	< 500	ug̃/kg̃	12/ 9/99	8270

Page 2 Lab Number: 99-D3236 Sample Number: 997555 December 17, 1999

Analysis Performed R	lesults		Analyzed	Method
Hexachlorobutadiene	< 250	ug/kg	12/ 9/99	8270
4-Chloro-3-Methylphenol	< 500	ug/kg	12/ 9/99	8270
2-Methylnaphthalene	1,700	ug/kg	12/ 9/99	8270
Hexachlorocyclopentadiene	< 250	ug/kg	12/ 9/99	8270
2,4,6-Trichlorophenol	< 250	ug/kg	12/ 9/99	8270
2,4,5-Trichlorophenol	< 500	ug/kg	12/ 9/99	8270
2-Chloronaphthalene	< 250	ug/kg	12/ 9/99	8270
2-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
Dimethylphthalate	< 250	ug/kg	12/ 9/99	8270
Acenaphthylene	2,700	ug/kg	12/ 9/99	8270
2,6-Dinitrotoluene	< 250	ug/kg	12/ 9/99	8270
3-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
Acenaphthene	540	ug/kg	12/ 9/99	8270
2,4-Dinitrophenol	< 1,500	ug/kg	12/ 9/99	8270
4-Nitrophenol	< 500	ug/kg	12/ 9/99	8270
Dibenzofuran	430	ug/kg	12/ 9/99	8270
2,4-Dinitrotoluene	< 250	ug/kg	12/ 9/99	8270
Diethylphthalate	< 250	ug/kg	12/ 9/99 12/ 9/99 12/ 9/99 12/ 9/99	8270
4-Chlorophenyl-phenylethe	< 250	ug/kg	12/ 9/99	8270
Fluorene	3,400	ug/kg	12/ 9/99	8270
4-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
		ug/kg	12/ 9/99	8270
4,6-Dinitro-2-Methylpheno	< 250	ug/kg	12/ 9/99	8270
N-Nitrosodiphenylamine	< 250	ug/kg	12/ 9/99	8270
4-Bromophenyl-phenylether	< 250	ug/kg	12/ 9/99	8270
Hexachlorobenzene	< 4,000		12/ 9/99	8270
Pentachlorophenol	9,400	ug/kg	12/ 9/99	8270
Phenanthrene		ug/kg	12/ 9/99	02/0
Comment: 1/10 dilution on		va /lea	12/0/00	8270
Anthracene	3,400 < 250	ug/kg	12/ 9/99 12/ 9/99	
Di-n-Butylphthalate		ug/kg	12/ 9/99	8270
Fluoranthene	7,300	ug/kg	12/ 9/99	04/0
Comment: 1/10 dilution on	13,000	na/ka	12/ 9/99	8270
Pyrene 1/10 dilution on		ug/kg	14/ 3/39	04/0
Comment: 1/10 dilution on	76/14/33	11 or /lea	12/0/00	8270
Butylbenzylphthalate	\ 23U	ug/kg	12/ 9/99	
3-3'-Dichlorobenzidine	< 500	ug/kg	12/ 9/99	8270
Benzo(a)anthracene	3,600	ug/kg	12/ 9/99	8270
Chrysene	2,500	ug/kg	12/ 9/99	8270
bis(2-ethylhexyl)phthalat	< 1,000	ug/kg	12/ 9/99	8270
Di-n-Octylphthalate	< 250	ug/kg	12/ 9/99	8270
Benzo(b)fluoranthene	3,200	ug/kg	12/ 9/99	8270
Benzo(k)fluoranthene	1,600	ug/kg	12/ 9/99	8270
Benzo(a)pyrene	4,800	ug/kg	12/ 9/99	8270
Indeno(1,2,3-cd)pyrene	900	ug/kg	12/ 9/99	8270
Dibenz(a,h)anthracene	590	ug/kg	12/ 9/99	8270
Benzo(g,h,i)perylene	1,100	ug/kg	12/ 9/99	8270
PCB Results:	. ===	15	10/0/0=	00007
PCB-1016	< 500	ug/kg	12/ 9/99	A0808

Page 3

Lab Number: 99-D3236 Sample Number: 997555

Décember 17, 1999

Analysis Performed	Results		Analyzed	Method
PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 PCB-1260	< 500 < 500 < 500 < 500 < 500 < 500	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	12/ 9/99 12/ 9/99 12/ 9/99 12/ 9/99 12/ 9/99 12/ 9/99	8080A 8080A 8080A 8080A 8080A

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director Environmental Services Program Division of Environmental Quality

VALERIE WILDER, HWP

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

-DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 997556 Lab Number: 99-D3237

Reported To: BRIAN ALLEN

Affiliation: **ESP**

Project Code: 4071/9197

Report Date:

12/15/99

Date Collected: Date Received:

12/ 2/99 12/ 2/99

Sample Collected by:

Sampling Location:

Sample Description:

BRIAN ALLEN, ESP

MEXICO FMGP SITE, SOIL GRAB OF

SB-01 (5.5-6 FT)

County:

AUDRAIN

nalysis Performed	Results		Analyzed	Method
BNA Results:				
Phenol	< 250	ug/kg	12/ 9/99	8270
bis(-2-Chloroethyl)Ether	< 250	ug/kg	12/ 9/99	8270
2-Chlorophenol	< 500	ug/kg	12/ 9/99	8270
1,3-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
1,4-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
N-nitrosodimethylamine	< 250	ug/kg	12/ 9/99	8270
1,2-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
2-Methylphenol	< 250	ug/kg	12/ 9/99	8270
bis(2-Chloroisopropyl)Eth	< 250	ug/kg	12/ 9/99	8270
4-Methylphenol	< 250	ug/kg	12/ 9/99	8270
N-Nitro-Di-n-Propylamine	< 250	ug/kg	12/ 9/99	8270
Hexachloroethane	< 250	ug/kg	12/ 9/99	8270
Nitrobenzene	< 250	ug/kg	12/ 9/99	8270
Isophorone	< 250	ug/kg	12/ 9/99	8270
2-Nitrophenol	< 250	ug/kg	12/ 9/99	8270
2,4-Dimethylphenol	< 250	ug/kg	12/ 9/99	8270
Benzoic Acid	< 250	ug/kg	12/ 9/99	8270
bis(2-Chloroethoxy)Methan	< 250	ug/kg	12/ 9/99	8270
2,4-Dichlorophenol	< 250	ug/kg	12/ 9/99	8270
1,2,4-Trichlorobenzene	< 250	ug/kg	12/ 9/99	8270
Naphthalene	< 250	ug/kg	12/ 9/99	8270
4-Chloroaniline	< 500	ug/kg	12/ 9/99	8270
Hexachlorobutadiene	< 250	ug/kg	12/ 9/99	8270
4-Chloro-3-Methylphenol	< 500	ug/kg	12/ 9/99	8270

Page 2 Lab Number: 99-D3237 Sample Number: 997556 December 15, 1999

Analysis Performed	Results		Analyzed	Method
2-Methylnaphthalene	2,500	ug/kg	12/ 9/99	8270
Hexachlorocyclopentadiene	< 250	ug/kg	12/ 9/99	8270
2,4,6-Trichlorophenol	< 250	ug/kg	12/ 9/99	8270
2,4,5-Trichlorophenol	< 500	ug/kg	12/ 9/99	8270
2-Chloronaphthalene	< 250	ug/kg	12/ 9/99	8270 ·
2-Nitroaniline	< 500	ug/kg	12/ 9/99	8270.
Dimethylphthalate	< 250	ug/kg	12/ 9/99	8270
Acenaphthylene	1,300	ug/kg	12/ 9/99	8270
2,6-Dinitrotoluene	< 250	ug/kg	12/ 9/99	8270
3-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
Acenaphthene	< 250	ug/kg	12/ 9/99	8270
2,4-Dinitrophenol	< 1,500	ug/kg	12/ 9/99	8270
4-Nitrophenol	< 500	ug/kg	12/ 9/99	8270
	300	ug/kg	12/ 9/99	8270
Dibenzofuran	< 250		12/ 9/99	8270
2,4-Dinitrotoluene		ug/kg	12/ 9/99	
Diethylphthalate	< 250	ug/kg	12/ 9/99	8270
4-Chlorophenyl-phenylethe	< 250	ug/kg	12/ 9/99	8270
Fluorene	1,300	ug/kg	12/ 9/99	8270
4-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
4,6-Dinitro-2-Methylpheno	< 1,500	ug/kg	12/ 9/99	8270
N-Nitrosodiphenylamine	< 250	ug/kg	12/ 9/99	8270
4-Bromophenyl-phenylether	< 250	ug/kg	12/ 9/99	8270
Hexachlorobenzene	< 250	ug/kg	12/ 9/99	8270
Pentachlorophenol	< 4,000	ug/kg	12/ 9/99	8270
Phenanthrene	3,900	ug/kg	12/ 9/99	8270
Anthracene	1,800	ug/kg	12/ 9/99	8270
Di-n-Butylphthalate	< 250	ug/kg	12/ 9/99	8270
Fluoranthene	2,100	ug/kg	12/ 9/99	8270
Pyrene	1,900	ug/kg	12/ 9/99	8270
Butylbenzylphthalate	< 250	ug/kg	12/ 9/99	8270
3-3'-Dichlorobenzidine	< 500	ug/kg	12/ 9/99	8270
Benzo(a)anthracene	450	ug/kg	12/ 9/99	8270
Chrysene	570	ug/kg	12/ 9/99	8270
bis(2-ethylhexyl)phthalat	< 1,000	ug/kg	12/ 9/99	8270
Di-n-Octylphthalate	< 250	ug/kg	12/ 9/99	8270
Benzo(b)fluoranthene	340	ug/kg	12/ 9/99	8270
Benzo(k)fluoranthene	330	ug/kg	12/ 9/99	8270
Benzo(a)pyrene	810	ug/kg	12/ 9/99	8270
	< 250	ug/kg	12/ 9/99	8270
Indeno(1,2,3-cd)pyrene	< 250	ug/kg	12/ 9/99	8270
Dibenz(a,h)anthracene	< 250			8270
Benzo(g,h,i)perylene	× 230	ug/kg	12/ 9/99	0210
PCB Results:	< 500	11 G /le G	12/0/00	80807
PCB-1016	< 500	ug/kg	12/ 9/99	A0808
PCB-1221	< 500	ug/kg	12/ 9/99	A0808
PCB-1232	< 500	ug/kg	12/ 9/99	A0808
PCB-1242	< 500	ug/kg	12/ 9/99	A0808
PCB-1248	< 500	ug/kg	12/ 9/99	A0808
PCB-1254	< 500	ug/kg	12/ 9/99	8080A

Page 3

Lab Number: 99-D3237 Sample Number: 997556

December 15, 1999

Analysis Performed	Results		Analyzed	Method
PCB-1260	< 500	ug/kg	12/ 9/99	8080A

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency,

James H. Long, Director Environmental Services Program Division of Environmental Quality

VALERIE WILDER, HWP c:



STATE OF MISSOURI DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM RECEIVED

RESULTS OF SAMPLE ANALYSES

DEU 2 3 1999

Sample Number: Lab Number: 997557 99-D3238

MARDOUS WASTE PROGRAM MISSOURI DEPARTMENT OF

NATURAL RESOURCES

Reported To:

BRIAN ALLEN

Affiliation: **ESP**

Project Code: 4071/9197

Report Date:

12/21/99

Date Collected:

Date Received:

12/ 2/99 12/ 2/99

Sample Collected by:

Sampling Location:

Sample Description:

BRIAN ALLEN, ESP

MEXICO FMGP SITE, SOIL GRAB OF SB-03 (3.5-4 FT) LOCATED 37 FT

EAST OF NORTHERNMOST VISIBLE TANK

SUPPORT

County:

AUDRAIN

Analysis Performed	Results		Analyzed	Method
BNA Results:	5.00	<u></u>		
Phenol	< 500	ug/kg	12/14/99	8270
bis(-2-Chloroethyl)Ether	< 500	ug/kg	12/14/99	8270
2-Chlorophenol	< 1,000	ug/kg	12/14/99	8270
1,3-Dichlorobenzene	< 500	ug/kg	12/14/99	8270
1,4-Dichlorobenzene	< 500	ug/kg	12/14/99	8270
N-nitrosodimethylamine	< 500	ug/kg	12/14/99	8270
1,2-Dichlorobenzene	< 500	ug/kg	12/14/99	8270
2-Methylphenol	< 500	ug/kg	12/14/99	8270
bis(2-Chloroisopropyl)Eth	< 500	ug/kg	12/14/99	8270
4-Methylphenol	< 500	ug/kg	12/14/99	8270
N-Nitro-Di-n-Propylamine	< 500	ug/kg	12/14/99	8270
Hexachloroethane	< 500	ug/kg	12/14/99	8270
Nitrobenzene	< 500	ug/kg	12/14/99	8270
Isophorone	< 500	ug/kg	12/14/99	8270
2-Nitrophenol	< 500	ug/kg	12/14/99	8270
2,4-Dimethylphenol	< 500	ug/kg	12/14/99	8270
Benzoic Acid	< 500	ug/kg	12/14/99	8270
bis(2-Chloroethoxy)Methan	< 500	ug/kg	12/14/99	8270
2,4-Dichlorophenol	< 500	ug/kg	12/14/99	8270
1,2,4-Trichlorobenzene	< 500	ug/kg	12/14/99	8270
Naphthalene	3,000	ug/kg	12/14/99	8270
4-Chloroaniline	< 1,000	ug/kg	12/14/99	8270

Page 2 Lab Number: 99-D3238 Sample Number: 997557 December 21, 1999

Analysis Performed	Results		Analyzed	Method
Hexachlorobutadiene	< 500	ug/kg	12/14/99	8270
4-Chloro-3-Methylphenol	< 1,000	ug/kg	12/14/99	8270
2-Methylnaphthalene	3,300	ug/kg	12/14/99	8270
Hexachlorocyclopentadiene	< 500	ug/kg	12/14/99	8270
2,4,6-Trichlorophenol	< 500	ug/kg	12/14/99	8270
2,4,5-Trichlorophenol	< 1,000	ug/kg	12/14/99	8270
2-Chloronaphthalene	< 500	ug/kg	12/14/99	8270
2-Nitroaniline	< 1,000	ug/kg	12/14/99	8270
Dimethylphthalate	< 500	ug/kg	12/14/99	8270
Acenaphthylene	3,600	ug/kg	12/14/99	8270
2,6-Dinitrotoluene	< 500	ug/kg	12/14/99	8270
3-Nitroaniline	< 1,000	ug/kg	12/14/99	8270
II.	9,600	ug/kg	12/14/99	8270
Acenaphthene	< 3,000		12/14/99	8270
2,4-Dinitrophenol		ug/kg	12/14/99	
4-Nitrophenol	< 1,000	ug/kg	12/14/99	8270
Dibenzofuran	5,500	ug/kg	12/14/99	8270
2,4-Dinitrotoluene	< 500	ug/kg	12/14/99	8270
Diethylphthalate	< 500	ug/kg	12/14/99	8270
4-Chlorophenyl-phenylethe	< 500	ug/kg	12/14/99	8270
Fluorene	14,000	ug/kg	12/14/99	8270
Comment: 1/10 dilution				*
4-Nitroaniline	< 1,000	ug/kg	12/14/99	8270
4,6-Dinitro-2-Methylpheno	< 3,000	ug/kg	12/14/99	8270
N-Nitrosodiphenylamine	< 500	ug/kg	12/14/99	8270
4-Bromophenyl-phenylether	< 500	ug/kg	12/14/99	8270
Hexachlorobenzene	< 500	ug/kg	12/14/99	8270
Pentachlorophenol	< 8,000	ug/kg	12/14/99	8270
Phenanthrene	150,000	ug/kg	12/14/99	8270
Comment: Estimated	•	5, 5	, , ,	
Anthracene	30,000	ug/kg	12/14/99	8270
Comment: 1/10 dilution		- 27 - 3	, ,	
Di-n-Butylphthalate	< 500	ug/kg	12/14/99	8270
Fluoranthene	160,000	ug/kg	12/14/99	8270
Comment: Estimated	200,000	~2/ **3	,, - >	2 - 1 - 1
1	220,000	ug/kg	12/14/99	8270
Pyrene Comment: Estimated	220,000	~3/ . .9	12/11/00	<i>32.</i> 0
	< 500	ug/kg	12/14/99	8270
Butylbenzylphthalate	< 1,000	ug/kg	12/14/99	8270
3-3'-Dichlorobenzidine	41,000		12/14/99	8270
Benzo(a)anthracene	41,000	ug/kg	14/14/99	0270
Comment: 1/10 dilution	E1 000	11 m /le m	12/14/00	9220
Chrysene	51,000	ug/kg	12/14/99	8270
Comment: 1/10 dilution	- 0 000		10/14/00	0070
bis(2-ethylhexyl)phthalat	< 2,000	ug/kg	12/14/99	8270
Di-n-Octylphthalate	< 500	ug/kg	12/14/99	8270
Benzo(b)fluoranthene	39,000	ug/kg	12/14/99	8270
Comment: 1/10 dilution		4 -		
Benzo(k)fluoranthene	32,000	ug/kg	12/14/99	8270
Comment: 1/10 dilution				

Page 3

Lab Number: 99-D3238 Sample Number: 997557 December 21, 1999

Analysis Performed	Results		Analyzed	Method
Benzo(a)pyrene Comment: 1/10 dilution	55,000	ug/kg	12/14/99	8270
Indeno(1,2,3-cd)pyrene Comment: 1/10 dilution	11,000	ug/kg	12/14/99	8270
Dibenz(a,h)anthracene	7,200	ug/kg	12/14/99	8270
Benzo(g,h,i)perylene Comment: 1/10 dilution	13,000	ug/kg	12/14/99	8270
PCB Results:				
PCB-1016	< 500	ug/kg	12/ 9/99	A0808
PCB-1221	< 500	ug/kg /	12/ 9/99	8080A
PCB-1232	< 500	ug/kg	12/ 9/99	8080A
PCB-1242	< 500	ug/kg	12/ 9/99	8080A
PCB-1248	< 500	ug/kg	12/ 9/99	8080A
PCB-1254	< 500	ug/kg	12/ 9/99	A0808
PCB-1260	< 500	ug/kg	12/ 9/99	8080A

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director

Environmental Services Program Division of Environmental Quality

c: VALERIE WILDER, HWP





DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 997558 Lab Number: 99-D3239

Reported To: BRIAN ALLEN

Affiliation: ESP

Project Code: 4071/9197

Report Date:

12/21/99

Date Collected: Date Received:

12/ 2/99 12/ 2/99

Sample Collected by:

Sampling Location:

Sample Description:

County:

BRIAN ALLEN, ESP

MEXICO FMGP SITE, SOIL GRAB OF

SB-03 (5.5-6 FT)

AUDRAIN

nalysis Performed	Results		Analyzed	Method
VOA Results:				
Chloromethane	< 25.0	ug/kg	12/ 6/99	8260
Vinyl Chloride	< 25.0	ug/kg	12/ 6/99	8260
Bromomethane	< 25.0	ug/kg	12/ 6/99	8260
Chloroethane	< 25.0	ug/kg	12/ 6/99	8260
1,1-Dichloroethene	< 25.0	ug/kg	12/ 6/99	8260
Acetone	< 100	ug/kg	12/ 6/99	8260
Carbon Disulfide	< 25.0	ug/kg	12/ 6/99	8260
Methylene Chloride	< 100	ug/kg	12/ 6/99	8260
Methyl Tertiary Butyl Eth	< 25.0	ug/kg	12/ 6/99	8260
trans-1,2-Dichloroethene	< 25.0		12/ 6/99	8260
1,1-Dichloroethane	< 25.0	ug/kg	12/ 6/99	8260
2-Butanone	< 100	ug/kg	12/ 6/99	8260
cis-1,2-Dichloroethene	< 25.0	ug/kg	12/ 6/99	8260
Chloroform	< 25.0	ug/kg	12/ 6/99	8260
1,1,1-Trichloroethane	< 25.0	ug/kg	12/ 6/99	8260
Carbon Tetrachloride	< 25.0	ug/kg	12/ 6/99	8260
Benzene	< 25.0	ug/kg	12/ 6/99	8260
1,2-Dichloroethane	< 25.0	ug/kg	12/ 6/99	8260
Trichloroethene	< 25.0	ug/kg	12/ 6/99	8260
1,2-Dichloropropane	< 25.0	ug/kg	12/ 6/99	8260
Bromodichloromethane	< 25.0	ug/kg	12/ 6/99	8260
2-Hexanone	< 100	ug/kg	12/ 6/99	8260
Trans-1,3-Dichloropropene	< 25.0		12/ 6/99	8260
Foluene	< 25.0	ug/kg	12/ 6/99	8260

Page 2 Lab Number: 99-D3239 Sample Number: 997558 December 21, 1999

Analysis Performed	Results		Analyzed	Method
CIS-1,3-Dichloropropene	< 25.0	ug/kg	12/ 6/99	8260
1,1,2-Trichloroethane	< 25.0	ug/kg	12/ 6/99	8260
4-Methyl-2-Pentanone	< 100	ug/kg	12/ 6/99	8260
Tetrachloroethene	< 25.0	ug/kg	12/ 6/99	8260
Dibromochloromethane	< 25.0	ug/kg	12/ 6/99	8260
Chlorobenzene	< 25.0	ug/kg	12/ 6/99	8260
Ethylbenzene	< 25.0	ug/kg	12/ 6/99	8260
Total Xylenes	78.0	ug/kg	12/ 6/99	8260
Styrene	< 25.0	ug/kg	12/ 6/99	8260
Bromoform	< 25.0	ug/kg	12/ 6/99	8260
1,1,2,2-Tetrachloroethane	< 25.0	ug/kg	12/ 6/99	8260
1,3-Dichlorobenzene	< 25.0	ug/kg	12/ 6/99	8260
1,4-Dichlorobenzene	< 25.0	ug/kg	12/ 6/99	8260
1,2-Dichlorobenzene	< 25.0	ug/kg	12/ 6/99	8260
BNA Results:	— · ·	J) J	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Phenol	< 250	ug/kg	12/ 9/99	8270
bis(-2-Chloroethyl)Ether	< 250	ug/kg	12/ 9/99	
2-Chlorophenol	< 500	ug/kg	12/ 9/99	8270
1,3-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
1,4-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
N-nitrosodimethylamine	< 250	ug/kg	12/9/99	8270
1,2-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
2-Methylphenol	< 250	ug/kg	12/ 9/99 12/ 9/99 12/ 9/99 12/ 9/99 12/ 9/99	8270
bis(2-Chloroisopropyl)Eth	< 250	ug/kg	12/ 9/99	8270
4-Methylphenol	< 250	ug/kg	12/ 9/99	8270
N-Nitro-Di-n-Propylamine	< 250	ug/kg	12/ 9/99	8270
Hexachloroethane	< 250	ug/kg	12/ 9/99	8270
Nitrobenzene	< 250	ug/kg	12/ 9/99	8270
Isophorone	< 250	ug/kg	12/ 9/99	8270
2-Nitrophenol	< 250	ug/kg	12/ 9/99	8270
2,4-Dimethylphenol	< 250	ug/kg	12/ 9/99	8270
Benzoic Acid	< 250	ug/kg	12/ 9/99	8270
bis(2-Chloroethoxy)Methan		ug/kg	12/ 9/99	8270
2,4-Dichlorophenol	< 250	ug/kg	12/ 9/99	8270
1,2,4-Trichlorobenzene	< 250	ug/kg	12/ 9/99	8270
Naphthalene	750	ug/kg	12/ 9/99	8270
4-Chloroaniline	< 500	ug/kg	12/ 9/99	8270
Hexachlorobutadiene	< 250	ug/kg	12/ 9/99	8270
4-Chloro-3-Methylphenol	< 500	ug/kg	12/ 9/99	8270
2-Methylnaphthalene	540	ug/kg	12/ 9/99	8270
Hexachlorocyclopentadiene	< 250	ug/kg	12/ 9/99	8270
2,4,6-Trichlorophenol	< 250	ug/kg	12/ 9/99	8270
2,4,6 Trichlorophenol	< 500	ug/kg	12/ 9/99	8270
2-Chloronaphthalene	< 250	ug/kg	12/ 9/99	8270
2-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
Dimethylphthalate	< 250	ug/kg	12/ 9/99	8270
Acenaphthylene	3,400	ug/kg	12/ 9/99	8270
2,6-Dinitrotoluene	< 250	ug/kg	12/ 9/99	8270
Z, 0-Dinitorocordene	. 250	49/149		

Page 3
Lab Number: 99-D3239
Sample Number: 997558
December 21, 1999

Analysis Performed	Results		Analyzed	Method
3-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
Acenaphthene	12,000	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution on		3/ 9	, -, -,	
2,4-Dinitrophenol	< 1,500	ug/kg	12/ 9/99	8270
4-Nitrophenol	< 500	ug/kg	12/ 9/99	8270
Dibenzofuran	2,800	ug/kg	12/ 9/99	8270
2,4-Dinitrotoluene	< 250	ug/kg	12/ 9/99	8270
Diethylphthalate	< 250	ug/kg	12/ 9/99	8270
4-Chlorophenyl-phenylethe	< 250	ug/kg	12/ 9/99	8270
Fluorene	9,700		12/ 9/99	8270
Comment: 1/10 dilution on	12/11/00	ug/kg	12/ 3/33	0270
Condition of	< 500	11 m /lem	12/0/00	0270
4-Nitroaniline		ug/kg	12/ 9/99	8270
4,6-Dinitro-2-Methylpheno		ug/kg	12/ 9/99	8270
N-Nitrosodiphenylamine	2,700	ug/kg	12/ 9/99	8270
4-Bromophenyl-phenylether	< 250	ug/kg	12/ 9/99	8270
Hexachlorobenzene	< 250	ug/kg	12/ 9/99	8270
Pentachlorophenol	< 4,000	ug/kg	12/ 9/99	8270
Phenanthrene	13,000	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution on		á.		_
Anthracene	8,600	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution on	12/14/99			!
■ Di-n-Butylphthalate	< 250	ug/kg	12/ 9/99	8270
Fluoranthene	93,000	ug/kg	12/ 9/99	8270
Comment: Estimated		<u>-</u> , -		
Pyrene	150,000	ug/kg	12/ 9/99	8270
Comment: Estimated	•	2, 2	• ,	
Butylbenzylphthalate	< 250	ug/kg	12/ 9/99	8270
3-3'-Dichlorobenzidine	< 500	ug/kg	12/ 9/99	8270
Benzo(a)anthracene	21,000	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution on		3, 3	, ,	
Chrysene	21,000	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution on		3, 3	, ,	
bis(2-ethylhexyl)phthalat	< 1,000	ug/kg	12/ 9/99	8270
Di-n-Octylphthalate	< 250	ug/kg	12/ 9/99	8270
Benzo(b)fluoranthene	18,000	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution on		-9/ 3	, -,	
Benzo(k)fluoranthene	15,000	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution on		49/ 9	/ ///	
Benzo(a)pyrene	30,000	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution on		~y/ . ~y		<i>32.4</i>
Indeno(1,2,3-cd)pyrene	5,800	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution on		ug/ ng	10, 0,00	3273
Dibenz(a,h)anthracene	2,800	ug/kg	12/ 9/99	8270
	4,700	ug/kg ug/kg	12/ 9/99	8270
Benzo(g,h,i)perylene	4,700	ug/ vg	14/ 3/33	0210
PCB Results:	< 500	,,, a /k a	12/ 9/99	8080A
PCB-1016	< 500 < 500	ug/kg		8080A
PCB-1221		ug/kg	12/ 9/99	
PCB-1232	< 500	ug/kg	12/ 9/99	8080A

Page 4

Lab Number: 99-D3239 Sample Number: 997558 December 21, 1999

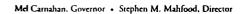
Analysis Performed	Results		Analyzed	Method
PCB-1242	< 500	ug/kg	12/ 9/99	A080A
PCB-1248	< 500	ug/kg	12/ 9/99	A080A
PCB-1254	< 500	ug/kg	12/ 9/99	A080A
PCB-1260	< 500	ug/kg	12/ 9/99	A080A

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director

Environmental Services Program Division of Environmental Quality

C: VALERIE WILDER, HWP





TOF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY -P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 997559 Lab Number: 99-D3240

BRIAN ALLEN Reported To:

Affiliation: ESP

Project Code: 4071/9197

Report Date: 12/17/99 12/ 2/99 12/ 2/99 Date Collected:

Date Received:

Sample Collected by:

Sampling Location:

Sample Description:

BRIAN ALLEN, ESP
MEXICO FMGP SITE, SOIL GRAB OF
SB-04 (3.5-4 FT) LOCATED 5 FT

EAST OF SB-03

County:

AUDRAIN

Analysis Performed	Results		Analyzed	Method
BNA Results:				
Phenol	< 250	ug/kg	12/ 9/99	8270
bis(-2-Chloroethyl)Ether	< 250	ug/kg	12/ 9/99	8270
2-Chlorophenol	< 500	ug/kg	12/ 9/99	8270
1,3-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
1,4-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
N-nitrosodimethylamine	< 250	ug/kg	12/ 9/99	8270
1,2-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
2-Methylphenol	< 250	ug/kg	12/ 9/99	8270
bis(2-Chloroisopropyl)Eth	< 250	ug/kg	12/ 9/99	8270
4-Methylphenol	< 250	ug/kg	12/ 9/99	8270
N-Nitro-Di-n-Propylamine	< 250	ug/kg	12/ 9/99	8270
Hexachloroethane	< 250	ug/kg	12/ 9/99	8270
Nitrobenzene	< 250	ug/kg	12/ 9/99	8270
Isophorone	< 250	ug/kg	12/ 9/99	8270
2-Nitrophenol	< 250	ug/kg	12/ 9/99	8270
2,4-Dimethylphenol	< 250	ug/kg	12/ 9/99	8270
Benzoic Acid	< 250	ug/kg	12/ 9/99	8270
bis(2-Chloroethoxy)Methan	< 250	ug/kg	12/ 9/99	8270
2,4-Dichlorophenol	< 250	ug/kg	12/ 9/99	8270
1,2,4-Trichlorobenzene	< 250	ug/kg	12/ 9/99	8270
Naphthalene	40,000	ug/kg	12/ 9/99	8270
Comment: $1/10$ dilution on				
4-Chloroaniline	< 500	ug/kg	12/ 9/99	8270

Page 2 Lab Number: 99-D3240 Sample Number: 997559 December 17, 1999

Analysis Performed	Results		Analyzed	Method
Hexachlorobutadiene	< 250	ug/kg	12/ 9/99	8270
4-Chloro-3-Methylphenol	< 500	ug/kg	12/ 9/99	8270
2-Methylnaphthalene	42,000	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution of				
Hexachlorocyclopentadiene	< 250	ug/kg	12/ 9/99	8270
2,4,6-Trichlorophenol	< 250	ug/kg	12/ 9/99	8270
2,4,5-Trichlorophenol	< 500	ug/kg	12/ 9/99	8270
2-Chloronaphthalene	< 250	ug/kg	12/ 9/99	8270
2-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
Dimethylphthalate	< 250	ug/kg	12'/ 9'/99	8270
Acenaphthylene	14,000	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution of		3 , 3		
2,6-Dinitrotoluene	< 250	ug/kg	12/ 9/99	8270
3-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
Acenaphthene	3,100	ug/kg	12/ 9/99	8270
2,4-Dinitrophenol	< 1,500	ug/kg	12/ 9/99	8270
4-Nitrophenol	< 500	ug/kg	12/ 9/99	8270
Dibenzofuran	3,100	ug/kg	12/ 9/99	8270
2,4-Dinitrotoluene	< 250	ug/kg	12/ 9/99	8270
Diethylphthalate	< 250	ug/kg	12/ 9/99	8270
4-Chlorophenyl-phenylethe		ug/kg	12/ 9/99	8270
Fluorene	13,000	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution of		ug/ kg	12/ 3/33	0270
4-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
4,6-Dinitro-2-Methylpheno		ug/kg		8270
N-Nitrosodiphenylamine	< 250		12/ 9/99	8270
4-Bromophenyl-phenylether	< 250	ug/kg ug/kg	12/ 9/99	8270
Hexachlorobenzene	< 250	ug/kg	12/ 9/99	8270
Pentachlorophenol	< 4,000	ug/kg	12/ 9/99	8270
Phenanthrene	39,000	ug/kg	12/ 9/99	8270
II		ug/kg	12/ 9/99	04/10
	19,000	na/ka	12/0/00	8270
Anthracene Comment: 1/10 dilution of		ug/kg	12/ 9/99	0210
	< 250	na /ka	12/0/00	8270
Di-n-Butylphthalate	17,000	ug/kg	12/ 9/99	
Fluoranthene		ug/kg	12/ 9/99	8270
Comment: 1/10 dilution of		110 /200	12/0/00	0270
Pyrene	28,000	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution of		/1	10/0/00	0070
Butylbenzylphthalate	< 250	ug/kg	12/ 9/99	8270
3-3'-Dichlorobenzidine	< 500 6 700	ug/kg	12/ 9/99	8270
Benzo(a)anthracene	6,700	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution of		,, _m , /1	12/0/00	0070
Chrysene	4,500	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution o			10/0/00	0070
bis(2-ethylhexyl)phthalat		ug/kg	12/ 9/99	8270
Di-n-Octylphthalate	< 250	ug/kg	12/ 9/99	8270
Benzo(b)fluoranthene	5,000	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution of	on 12/14/99			

Page 3

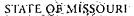
Lab Number: 99-D3240 Sample Number: 997559 December 17, 1999

Analysis Performed	Results		Analyzed	Method
Benzo(k)fluoranthene	3,000	ug/kg	12/ 9/99	8270
Benzo(a)pyrene	8,400	ug/kg	12/ 9/99	8270
Comment: 1/10 dilution of	on 12/14/99			
Indeno(1,2,3-cd)pyrene	1,800	ug/kg	12/ 9/99	8270
Dibenz(a,h)anthracene	1,400	ug/kg	12/ 9/99	8270
Benzo(g,h,i)perylene	1,900	ug/kg	12/ 9/99	8270
PCB Results:				
PCB-1016	< 500	ug/kg	12/ 9/99	8080A
PCB-1221	< 500	ug/kg	12/ 9/99	8080A
PCB-1232	< 500	ug/kg	12/ 9/99	8080A
PCB-1242	< 500	ug/kg	12/ 9/99	8080A
PCB-1248	< 500	ug/kg	12/ 9/99	8080A
PCB-1254	< 500	ug/kg	12/ 9/99	8080A
PCB-1260	< 500	ug/kg	12/ 9/99	8080A

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

Dames H. Long Director Environmental Services Program Division of Environmental Quality

VALERIE WILDER, HWP



DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 997560 Lab Number: 99-D3241

Reported To: BRIAN ALLEN

Affiliation: ESP

Project Code: 4071/9197

Report Date:

12/15/99

Date Collected: Date Received:

12/ 2/99 12/ 2/99

Sample Collected by:

Sampling Location:

County:

Sample Description:

BRIAN ALLEN, ESP

MEXICO FMGP SITE, SOIL GRAB OF SB-04 (6.5-7 FT)

AUDRAIN

nalysis Performed	Results		Analyzed	Method
BNA Results:				
Phenol	< 250	ug/kg	12/ 9/99	8270
bis(-2-Chloroethyl)Ether	< 250	ug/kg	12/ 9/99	8270
2-Chlorophenol	< 500	ug/kg	12/ 9/99	8270
1,3-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
1,4-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
N-nitrosodimethylamine	< 250	ug/kg	12/ 9/99	8270
1,2-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
2-Methylphenol	< 250	ug/kg	12/ 9/99	8270
bis(2-Chloroisopropyl)Eth	< 250	ug/kg	12/ 9/99	8270
4-Methylphenol	< 250	ug/kg	12/ 9/99	8270
N-Nitro-Di-n-Propylamine	< 250	ug/kg	12/ 9/99	8270
Hexachloroethane	< 250	ug/kg	12/ 9/99	8270
Nitrobenzene	< 250	ug/kg	12/ 9/99	8270
Isophorone	< 250	ug/kg	12/ 9/99	8270
2-Nitrophenol	< 250	ug/kg	12/ 9/99	8270
2,4-Dimethylphenol	< 250	ug/kg	12/ 9/99	8270
Benzoic Acid	< 250	ug/kg	12/ 9/99	8270
bis(2-Chloroethoxy)Methan	< 250	ug/kg	12/ 9/99	8270
2,4-Dichlorophenol	< 250	ug/kg	12/ 9/99	8270
1,2,4-Trichlorobenzene	< 250	ug/kg	12/ 9/99	8270
Naphthalene	< 250	ug/kg	12/ 9/99	8270
4-Chloroaniline	< 500	ug/kg	12/ 9/99	8270
Hexachlorobutadiene	< 250	ug/kg	12/ 9/99	8270
4-Chloro-3-Methylphenol	< 500	ug/kg	12/ 9/99	8270

Page 2 Lab Number: 99-D3241 Sample Number: 997560 December 15, 1999

Analysis Performed	Results		Analyzed	Method
2-Methylnaphthalene	< 250	ug/kg	12/ 9/99	8270
Hexachlor@cyclopentadiene	< 250	ug/kg	12/ 9/99	8270
2,4,6-Tri hlorophenol	< 250	ug/kg	12/ 9/99	8270
2,4,5-Trichlorophenol	< 500	ug/kg	12/ 9/99	8270
2-Chloronaphthalene	< 250	ug/kg	12/ 9/99	8270
2-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
Dimethylphthalate	< 250	ug/kg	12/ 9/99	8270
Acenaphthylene	< 250	ug/kg	12/ 9/99	8270
2,6-Dinitrotoluene	< 250	ug/kg	12/ 9/99	8270
3-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
Acenaphthene	< 250	ug/kg	12/ 9/99	8270
2,4-Dinitrophenol	< 1,500	ug/kg	12/ 9/99	8270
4-Nitrophenol	< 500	ug/kg	12/ 9/99	8270
Dibenzofuran	< 250	ug/kg	12/ 9/99	8270
2,4-Dinitrotoluene	< 250	u g/k g	12/ 9/99	8270
Diethylphthalate	< 250	ug/kg	12/ 9/99	8270
4-Chlorophenyl-phenylethe	< 250	u g/ kg	12/ 9/99	8270
Fluorene	< 250	ug/kg	.12/ 9/99	8270
4-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
4,6-Dinitro-2-Methylpheno	< 1,500	ug/kg	12/ 9/99	8270
N-Nitrosodiphenylamine	< 250	ug/kg	12/ 9/99	8270
4-Bromophenyl-phenylether	< 250	ug/kg	12/ 9/99	8270
Hexachlorobenzene	< 250	ug/kg	12/ 9/99	8270
Pentachlorophenol	< 4,000	ug/kg	12/ 9/99	8270
Phenanthrene	< 250	ug/kg	12/ 9/99	8270
Anthracene	< 250	ug/kg	12/ 9/99	8270
Di-n-Butylphthalate	< 250	ug/kg	12/ 9/99	8270
Fluoranthene	< 250	ug/kg	12/ 9/99	8270
Pyrene	< 250	ug/kg	12/ 9/99	8270
Butylbenzylphthalate	< 250	ug/kg	12/ 9/99	8270
3-3'-Dichlorobenzidine	< 500	ug/kg	12/ 9/99	8270
Benzo(a)anthracene	< 250	ug/kg	12/ 9/99	8270
Chrysene	< 250	ug/kg	12/ 9/99	8270
bis(2-ethylhexyl)phthalat	< 1,000	ug/kg	12/ 9/99	
Di-n-Octylphthalate	< 250	ug/kg	12/ 9/99	8270
Benzo(b)fluoranthene	< 250	ug/kg	12/ 9/99	8270
Benzo(k)fluoranthene	< 250	ug/kg	12/ 9/99	8270
Benzo(a)pyrene	< 250	ug/kg	12/ 9/99	8270
Indeno(1,2,3-cd)pyrene	< 250	ug/kg	12/ 9/99	8270
Dibenz(a,h)anthracene	< 250	u g/ kg	12/ 9/99	8270
Benzo(g,h,i)perylene	< 250	ug/kg	12/ 9/99	8270
PCB Results:	,			
PCB-1016	< 500	u g/ kg	12/ 9/99	A0808
PCB-1221	< 500	ug/kg	12/ 9/99	A0808
PCB-1232	< 500	u g/ kg	12/ 9/99	A0808
PCB-1242	< 500	ug/kg	12/ 9/99	A0808
PCB-1248	< 500	ug/kg	12/ 9/99	A0808
PCB-1254	< 500	ug/kg	12/ 9/99	A0808

Page 3

Lab Number: 99-D3241 Sample Number: 997560

December 15, 1999

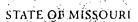
Analysis Performed	Results		Analyzed.	Method
PCB-1260	< 500	ug/kg	12/ 9/99	A0808

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director Environmental Services Program

Division of Environmental Quality

C: VALERIE WILDER, HWP



DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 997561 Lab Number: 99-D3242

BRIAN ALLEN Reported To:

Affiliation: ESP

Project Code: 4071/9197

12/15/99 Report Date: 12/ 2/99 12/ 2/99 Date Collected:

Date Received:

Sample Collected by:

BRIAN ALLEN, ESP

Sampling Location: Sample Description: MEXICO FMGP SITE, SOIL GRAB OF SB-08 (3.5-4 FT) LOCATED 10' WEST

OF SOUTHERN GATE POST FOR EAST

ENTRANCE TO SITE

County:

AUDRAIN

Analysis Performed	Results		Analyzed	Method
BNA Results:				
Phenol	< 250	ug/kg	12/ 9/99	8270
bis(-2-Chloroethyl)Ether	< 250	ug/kg	12/ 9/99	8270
2-Chlorophenol	< 500	ug/kg	12/ 9/99	8270
1,3-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
1,4-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
N-nitrosodimethylamine	< 250	ug/kg	12/ 9/99	8270
1,2-Dichlorobenzene	< 250	ug/kg	12/ 9/99	8270
2-Methylphenol	< 250	ug/kg	12/ 9/99	8270
bis(2-Chloroisopropyl)Eth	. < 250	ug/kg	12/ 9/99	8270
4-Methylphenol	< 250	ug/kg	12/ 9/99	8270
N-Nitro-Di-n-Propylamine	< 250	ug/kg	12/ 9/99	8270
Hexachloroethane	< 250	ug/kg	12/ 9/99	8270
Nitrobenzene	< 250	ug/kg	12/ 9/99	8270
Isophorone	< 250	ug/kg	12/ 9/99	8270
2-Nitrophenol	< 250	ug/kg	12/ 9/99	8270
2,4-Dimethylphenol	< 250	ug/kg	12/ 9/99	8270
Benzoic Acid	< 250	ug/kg	12/ 9/99	8270
bis(2-Chloroethoxy)Methan	< 250	ug/kg	12/ 9/99	8270
2,4-Dichlorophenol	< 250	ug/kg	12/ 9/99	8270
1,2,4-Trichlorobenzene	< 250	ug/kg	12/ 9/99	8270
Naphthalene	< 250	ug/kg	12/ 9/99	8270
t-Chloroaniline	< 500	ug/kg	12/ 9/99	8270

Page 2 Lab Number: 99-D3242 Sample Number: 997561 December 15, 1999

Analysis Performed	Results		Analyzed	Method
Hexachlorobutadiene	< 250	ug/kg	12/ 9/99	8270
4-Chloro-3-Methylphenol	< 500	ug/kg	12/ 9/99	8270
2-Methylnaphthalene	< 250	ug/kg		8270
Hexachlorocyclopentadiene		ug/kg	12/ 9/99	8270
2,4,6-Trichlorophenol	< 250	ug/kg	12/ 9/99	8270
2,4,5-Trichlorophenol	< 500	ug/kg	12/ 9/99	8270
2-Chloronaphthalene	< 250	ug/kg	12/ 9/99	8270
2-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
Dimethylphthalate	< 250	ug/kg	12/ 9/99	8270
Acenaphthylene	< 250	ug/kg	12/ 9/99	8270
2,6-Dinitrotoluene	< 250	u g/k g	12/ 9/99	8270
3-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
Acenaphthene	< 250	ug/kg	12/ 9/99	8270
2,4-Dinitrophenol	< 1,500	ug/kg	12/ 9/99	8270
4-Nitrophenol	< 500	ug/kg	12/ 9/99	8270
Dibenzofuran	< 250	ug/kg	12/ 9/99	8270
2,4-Dinitrotoluene	< 250	ug/kg	12/ 9/99	8270
Diethylphthalate	< 250	ug/kg	12/ 9/99	8270
4-Chlorophenyl-phenylethe	< 250	ug/kg	12/ 9/99	8270
Fluorene	< 250	ug/kg	12/ 9/99	8270
4-Nitroaniline	< 500	ug/kg	12/ 9/99	8270
4,6-Dinitro-2-Methylpheno	< 1,500	u g/k g	12/ 9/99	8270
N-Nitrosodiphenylamine	< 250	ug/kg	12/ 9/99	8270
4-Bromophenyl-phenylether	< 250	ug/kg	12/ 9/99	8270
Hexachlorobenzene	< 250	υg/kg	12/ 9/99	8270
Pentachlorophenol	< 4,000	ug/kg	12/ 9/99 12/ 9/99	8270
Phenanthrene	< 250	ug/kg	12/ 9/99	8270
Anthracene	< 250	ug/kg	12/ 9/99	8270
Di-n-Butylphthalate	< 250	ug/kg	12/ 9/99	8270
Fluoranthene	< 250	ug/kg	12/ 9/99	8270
Pyrene	< 250	ug/kg	12/ 9/99	8270
Butylbenzylphthalate	< 250	ug/kg	12/ 9/99	8270
3-3'-Dichlorobenzidine	< 500	ug/kg	12/ 9/99	8270
Benzo(a)anthracene	< 250	ug/kg	12/ 9/99	8270
Chrysene	< 250	ug/kg	12/ 9/99	
bis(2-ethylhexyl)phthalat	< 1,000	ug/kg	12/ 9/99	8270
Di-n-Octylphthalate	< 250	ug/kg	12/ 9/99	8270
Benzo(b)fluoranthene	< 250	ug/kg	12/ 9/99	8270
Benzo(k)fluoranthene	< 250	ug/kg	12/ 9/99	8270
Benzo(a)pyrene	< 250	ug/kg	12/ 9/99	8270
Indeno(1,2,3-cd)pyrene	< 250	ug/kg	12/ 9/99	8270
Dibenz(a,h)anthracene	< 250	ug/kg	12/ 9/99	8270
Benzo(g,h,i)perylene	< 250	ug/kg	12/ 9/99	8270
PCB Results:		,,	10/0/0-	0000
PCB-1016	< 500	ug/kg	12/ 9/99	8080A
PCB-1221	< 500	ug/kg	12/ 9/99	8080A
PCB-1232	< 500	ug/kg	12/ 9/99	A0808
PCB-1242	< 500	ug/kg	12/ 9/99	A0808

Page 3

Lab Number: 99-D3242 Sample Number: 997561 December 15, 1999

Results		Analyzed	Method
< 500 < 500	ug/kg ug/kg	12/ 9/99 12/ 9/99	A0808 A0808 A0808
	< 500	< 500 ug/kg < 500 ug/kg	< 500 ug/kg 12/ 9/99 < 500 ug/kg 12/ 9/99

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director Environmental Services Program Division of Environmental Quality

c: VALERIE WILDER, HWP

VIII. REFERENCES

REFERENCES

- 1. Allen, Brian J., Environmental Specialist, Superfund/RCRA Unit, Environmental Services Program (ESP), Missouri Department of Natural Resources (DNR). <u>Site Screening Investigation, Mexico Former Manufactured Gas Plant, Mexico, MO, Audrain County</u>. Memo. 4 pages.
- 2. Ameren UE. <u>About Us: Ameren UE History</u>. Internet information obtained by Julie Kelsey, Hazardous Waste Program (HWP), DNR, on December 28, 1999. 5 pages. http://www.ameren.com/ameren2/about/AU_UE/AU_ue_history.htm
- 3. The Audrain County Historical Society. <u>History of Audrain County Missouri, An Update 1936-1986</u>. 599 pages.
- 4. Freeman Publishing Company. <u>Mexico, Missouri, Past and Present, Progress and Prosperity</u>. Souvenir. 32 pages. Undated.
- 5. Foster, Kimberlee, Superfund Section, Hazardous Waste Program (HWP), Missouri Department of Natural Resources (DNR). <u>Desk Top Review Decision Form</u> for Mexico FMGP. June 4, 1999. 1 page, attachments.
- 6. Kelsey, Julie B., Environmental Specialist, Site Evaluation Unit, Superfund Section, DNR to Mexico FMGP Superfund Technical File. <u>Site Reconnaissance on November 23, 1999</u>. Memo. December 28, 1999: 2 pages.
- 7. Kelsey, Julie B., Environmental Specialist, Site Evaluation Unit, Superfund Section, DNR to Mexico FMGP Superfund Technical File. <u>Site Sampling on December 2, 1999</u>. Memo. December 28, 1999. 2 pages, with attached map.
- 8. Schooley, Herschel. <u>Centennial History of Audrain County</u>. 1937.
- 9. Warren, Julieann, Chief, Site Evaluation Unit, Superfund Section, HWP, DNR, to Mr. Tom Siedhoff, Environmental, Safety & Health, Ameren Services. Letter. October 19, 1999. 2 pages, enclosures.

Site Screening Investigation

DEC 2 0 1999

Mexico Former Manufactured Gas Plant HAZARDOUS WASTE PROGRAM MISSOURI DEPARTMENT OF NATURAL RESOURCES

Audrain County

Mexico FMGP

Audrain County, Missouri

SS Reference 1

Site Information:

Project Code: 4071 Site Code: 9197

ESP Staff:

Brian Allen

Joe Boland

Investigation Date: 12/2/99 HWP Staff:

Julie Kelsey

Introduction:

HWP requested ESP personnel conduct sampling as part of a Site Screening investigation being conducted at the Mexico Former Manufactured Gas Plant (FMGP) site in Audrain County. The site is at the northeast corner of S. Western Avenue and High Street in Mexico, MO. ESP Environmental Specialists Brian Allen and Joe Boland traveled to the site on December 2, 1999, to conduct sampling. HWP Environmental Specialist Julie Kelsey was present to provide site information and direct sampling efforts. Mr. Mark Bryant, representing the current property owner, AmerenUE, was also present during sampling. Sampling was conducted in accordance with established standard operating procedures within the MDNR, ESP.

Observations:

Upon arrival, personnel conducted a cursory reconnaissance of the site and, tentatively, determined where structures associated with the FMGP had been located. Personnel observed the apparent remnants of foundations for abandoned AST holders on the southwest end of the property, which were used, along with Sanborn maps, to determine where the FMGP structures had been located.

There is currently an active electrical substation on the property which partially hampered the selection of sampling points in some areas of concern. The remainder of the property is void of structures with the exception of a storage/maintenance building located in the southeast corner of the property, outside the primary areas of concern.

Field Methods:

ESP personnel collected a total of seven depth-discrete soil grab samples from the site. Soil borings were primarily conducted in and around the former gas holder, in the southwest portion of the site. Several borings were also conducted in the vicinity of the former retort as well, but no remarkable staining or odors were noted and no samples were collected from this area.

Site Screening Memorandum Mexico FMGP Site December 2, 1999 Page 3

Refer to the site map for the approximate locations of samples collected. Analytical results of samples collected will be provided under separate cover once completed.

Date:

Brian J. Allen

Environmental Specialist Superfund/RCRA Unit

Environmental Services Program

BJA:ch

c: Julie Kelsey, Environmental Specialist, HWP



About Us AmerenUE - History

Mexico FMGP Audrain County, Missouri SS Reference 2

- The Beginning
- Supply and Demand
- Electricity On The Move
- From River to Resort
- Acquisitions & Sales
- Power Plant Prosperity
- Where We Stand
- Where We're Going
- Timeline A History of Community and Company

Electricity moved from a sideshow attractions to a critical necessity thanks, in part, to Union Electric Company - now AmerenUE. In the 1870's, electric arc lamps were a Barnum and Bailey circus attraction. The arc lamp's uncomfortably hot light made the lamps not only impractical for indoor use but expensive to operate. Not until October 21, 1879, when New Yorker Thomas A. Edison invented the first successful incandescent lamp, did electric lighting become widespread and economical.

A Jumble of 30 Firms - The Beginning

Not to be outdone by New Yorkers, entrepreneurial St. Louisan and popular restaurateur Tony Faust bought a lighting system and lamps from the Paris Exposition to St. Louis in 1878. The first commercial lighting station to began generating electricity in 1881 with the creation of Brush Electric Association. In the 20 years that followed, more than 30 St. Louis companies began operating generators, installing poles and soliciting customers.

The formation of the "Union Company" -- later Union Electric Company -- on May 20, 1902 brought order to the chaos of multiple generators and overlapping power lines.

Starting with 2,000 customers, a handful of employees and generation capacity of six megawatts, the new company was faced with a daunting challenge: electrification of an event of international significance -- the Louisiana Purchase Exposition. Better known as the St. Louis World's Fair, the exposition opened in 1904 -- its eight large palaces and grounds blazing with light. The nation's first broad-scale demonstration of power boosted the then-tiny electric industry and prompted more people to install electric wiring in their homes. St. Louisians appreciated not only better illumination but also early appliances like electric fans and irons. By 1912, Union Electric's generating capacity was more than 50 megawatts to supply the growing demand for power.

Back

Supply and Demand

Foreseeing continuous growth in that demand, in 1913, Union Electric Company contracted to buy electricity generated in an innovative way – from the newly build Keokuk Dam in Iowa, 150 miles north of St. Louis on the Mississippi River.

Linking the 150 miles between Keokuk and St. Louis marked the greatest distance that power had ever been transmitted in such quantity. In 1925, Union Electric acquired Keokuk Plant, an engineering marvel in its time.

Back

Electricity On The Move

With the added generating capabilities of Keokuk Plant, UE began offering electricity to the then-rural areas outside St. Louis. In 1917, UE moved into the Missouri counties of Franklin, Jefferson, St. Charles, St. Francois and St. Louis.

In the 1920's, Union Electric began to add generation sources, acquiring or building fossil fuel plants. Cahokia Plant, which was built in 1928 and is now closed, and the first Venice Plant unit, built in 1942, boosted UE's peak energy output to 350 megawatts.

Back

From River To Resort

In the late 1920's and early 1930's, UE build Bagnell Dam on the Osage River in central Missouri to harness power for a second UE hydro-electric plant. Building the dam also created the popular tourist area, the Lake of the Ozarks — one of the world's largest manmade lakes. The lake with nearly 1,400 miles of resort area shoreline, still provides fishing, boating and fun for all ages.

The electric power generated at Osage Plant was not destined to satisfy Union Electric customers' demand for energy for long. At the outset of World War II, UE retired the first unit at Venice Plant, and construction began on two new units of the Venice, IL plant. Each new plant featured larger more efficient generators, which produced power at lower cost. But demand for electricity had not grown as fast as power-producing capabilities, leaving part of the UE system uneconomically idle.

To address this dilemma, UE joined a system of interconnected power companies in the late 1940's, bringing a new dimension to UE's operations. By constructing connecting transmission lines, Union Electric and other utilities created a "power pool" to share electricity.

The "power pool" arrangement worked well, and, since the first link, UE is now linked to 22 other utilities.

Back

Acquisitions/Sales

In the years after World War II, much of Union Electric's growth came from a number of acquisitions.

- UE gained 40,000 customers when Laclede Gas Company sold its electric utilities in 1945.
- In 1950, Missouri Power & Light Company, became a wholly-owned subsidiary.
- Missouri Edison Company joined as on operating subsidiary in 1954, while Missouri Utilities Company became a UE subsidiary in 1974.
- On December 30, 1983, these three subsidiaries were merged into Union Electric Company.

With the acquisitions came new customers, adding to the growing need for electrical service. In the 1960's and 70's, five new plants began producing power for Union Electric customers.

Back

Power Plant Prosperity

Four of these were coal-fired plants:

- UE completed construction of the 900-megawatt coal-fired Meramec Plant in 1961.
- The Sioux Plant in St. Charles County went on line with a 500-megawatt unit in 1967 and another 500-megawatt unit in 1968.
- Next came Labadie Plant in Franklin County, the company's largest generating plant.
 Labadie's first 600-megawatt unit was completed in 1970, the second in 1971, Unit 3 in 1972 and Unit 4 in 1973. When it was constructed, the 2,400-megawatt plant was one of the largest coal-fired plants ever built in the United States.
- Finally, UE's newest coal-fired plant is Rush Island, located in Jefferson City, on the Mississippi River, south of St. Louis. The plant's first 600-megawatt unit was completed in 1976; the second 600-megawatt unit was finished in 1977.

In 1984, UE completed its Callaway nuclear plant. Located about 100 miles west and 10 miles southeast of Fulton, MO, Callaway's 1,180-megawatt capacity makes it the largest single unit in the Union Electric system. In its first year of operation, Callaway set a nuclear power industry record for the most electricity ever produced in the United States. Long recognized as a top performing plant, Callaway has earned an enviable safety record and a reputation for quality and reliability.

Back

Where We Stand

Union Electric Company serves customers over 24,500 square miles in Illinois and Missouri. AmerenUE is Missouri's largest electric utility and the state's third largest distributor of natural gas. UE's more that one million residential, commercial and industrial customers receive energy from plants capable of producing 7,900 megawatts.

To provide even greater focus to its market area, AmerenUE, in 1992, acquired the Missouri retail properties of Arkansas Power & Light Company. This acquisition brought 26,000 new electric customers from southeastern Missouri into AmerenUE's fold. The same year AmerenUE sold its Iowa and northern Illinois retail properties to other utility companies.

The 1990s marked a period of staffing reductions and cost cutting and completion of a merger between CIPS and UE and creation of Ameren Corporation---holding company for AmerenUE and AmerenCIPS.

Back

Where We're Going

Behind AmerenUE's complex of power production equipment and supporting facilities are dedicated AmerenUE employees and a wealth of technology and expertise.

AmerenUE ranks among the nation's top utility companies in both size and sales. Sufficient capacity, competitive rates, a commitment to cost control and customer service point to a promising future for a company of more than 90 years of service to America's heartland.

Back

AmerenUE History - A Timeline of the Community & Company

1764	Messrs. Chouteau and Laclede founded the city of St. Louis.
1874	Eads' Bridge, the first arched steel truss in the world, opened over the Mississippi River between St. Louis and Illinois.
1878	The first arc lamps in St. Louis erected at the corner of Elm and Broadway at Tony Faust's restaurant.
1894	Union Station opened as the largest railroad station in the world.
1902	The first company bearing the Union Electric name - Union Company - is organized.
1904	UE completed construction of the Ashley Plant, providing steam heat for many downtown St. Louis buildings. The 36,000 kilowatt plant was originally coal-fired and then converted to oil-fired in 1972. It was the main source of electricity in St. Louis for years.
	The Palace of Electricity's electric lights awed spectators at the 1904 World's Fair in St. Louis
1906	Union Electric began to pay cash dividends on stock.
1909	UE entered the automobile business selling electric cars. The company became the St. Louis agent for Studebaker and Rauch & Lang autos.
1915	St. Louis converted city street lights from arc lamps to incandescent lamps.
1919	Following World War I, the American Legion was born during a national caucus held in the Shubert-Jefferson Theatre in the Union Electric building.
1927	A tornado strikes St. Louis, destroying more than \$10 million worth of property, UE linemen work to restore electricity to the city.
1929	"Bagnell Damming" the Osage River created 1,400 miles of shoreline for Lake of the Ozarks and helped UE generate almost 175 megawatts of hydroelectricity.
1946	Winston Churchill delivered his "Iron Curtain" speech at Westminster College in Fulton, Mo.
1950s	For decades, UE has owned Illinois-based gas operations in Alton and vicinity. The company's acquisition of other utilities in the 1950's brought additional Missouri-based gas customers. The company now provides gas in 67 Missouri communities and is the third largest distributor of natural gas in the state.
1963	UE finished construction of one of the largest pumped storage plants at the time it was built the picturesque 350-megawatt Taum Sauk Plant, in Reynolds County, Mo.
1966	The St. Louis Cardinals opened their new home Busch Stadium.

1997

For the first time, nuclear energy was produced in the UE 1984 system when Callaway Plant began providing 1,180 megawatts of power. 1992

UE gained 26,000 new customers in southeast Missouri -- territory acquired from Arkansas Power and Light.

Union Electric and Central Illinois Power Company, Inc. merged to form a new holding company - Ameren Corporation - parent of two venerable electric and gas utilities: UE and CIPS are now AmerenUE and AmerenCIPS.

Back

HISTORY OF

AUDRAIN COUNTY MISSOURI

An Update 1936-1986

MEXICO-AUDRAIN COUNTY LIZRARY Mexico, Missouri

777335

COMPILED and PUBLISHED

by

THE AUDRAIN COUNTY HISTORICAL SOCIETY

501 South Muldrow

Mexico, Missouri

599 pages

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Missouri Livestock Market Center

MISSOURI POWER AND LIGHT COMPANY - UNION ELECTRIC COMPANY

Mexico played an important role in the history of the utility industry in Missouri when Morris R. Locke & Company incorporated the Mexico, Mo. Water Works Company on October 21, 1885. On March 20, 1887 the Mexico Electric Light, Heat & Power Company was incorporated by J. F. Llewellyn and associates to take over the electric distribution system in Mexico, which had been constructed in 1885. In 1910, Locke purchased this company and consolidated both to form the Mexico Power Company. In 1920 the name was changed to Missouri Utilities Company.

In 1922 the electrical distribution system in Montgomery City was purchased and in 1923 the system at Clark was purchased from the town of Clark. Missouri Utilities common stock was acquired by the North American Light and Power Company. North American, which owned other utility properties in Missouri, planned to bring these firms under one name to meet the growing demand and to effect more efficiency in financial and capital expenditures. On March 1, 1924, the Company name was changed to Missouri Power & Light Company.

During the years from 1924 until the merger with the parent



Missouri Power and Light Co.

mber 31, 1983, Missouri Power & Light Company served premarily as a distribution company. As a distribution company most of the electricity and natural gas was purchased from other companies for resale. Electricity is generated with coal, nuclear and hydro power to give our customers quality electric service that is reliable and supplied at a fair cost. Natural gas is supplied for our distribution from Panhandle Eastern Pipeline Company of Houston, Texas. Natural gas is taken from the pipeline which runs through Central Missouri at several locations. On December 31, 1925 the Company purchased the Arctic Ice & Cold Storage Company which manufactured ice in Mexico.

The General Offices of Missouri Power & Light Company were located in Mexico when the Company was formed in 1924. However, in 1926 George Grote was named General Manager and the General Offices of MPL of Trade Building in Kansas City where they remained until October, 1934. Shortly thereafter the General Offices were moved to Jefferson City as part of the economy program within the Company.

In 1936 major transmission lines were constructed to serve the areas of Mexico, Jefferson City and Moberly. A second 69,000 volt transmission line was installed on the steel towers between Mexico and Jefferson City in 1939.

Steam heating services, which had been available in Mexico for a number of years, were discontinued during 1941 with the approval of the Missouri Public Service Commission, and the Mexico District Office was remodeled to provide improved facilities for merchandise and accounting departments. Merchandise, including large appliances, were sold in the Mexico office. In 1942 sale of merchandise was discontinued due to government regulations furthering the involvement in World War II

The end of World War II brought additional investment by MPL in Mexico. A 7000 kilowatt turbo-generator, boiler and accessory equipment was added. The Company's largest power

plant, with a generating capacity of 19,000 kilowatts, was completed and placed in service in Mexico in 1950. On December 18, 1950 the Securities and Exchange Commission issued an order approving the transfer by the North American Company of all outstanding common stock of Missouri Power & Light Company to Union Electric Company. As part of this order the Company was required to dispose of the water and ice properties in Mexico. This was completed in 1957.

On December 31, 1958 Mexico District Manager, Paul C. Ekern, retired and was replaced by J. J. McNamara. McNamara served as District Manager until he was replaced by Jerry Brown in August, 1974.

In 1969 the steam generating plant at Mexico was taken out of service for conversion from coal-fired to gas-fired boilers. This produced a significant pollution abatement in the Mexico area. Construction began on the new Missouri Power & Light Building on September 23, 1971 and the building was completed and occupied in 1972. Missouri Power & Light Company's last steam generating plant, located at Mexico, was closed in 1980 due to the age of the plant, the relatively small capacity for generation and the loss of natural gas as load generating fuel.

In 1982 the Board of Directors of MPL voted to merge with the parent Company, Union Electric Company. The decision was based on a study which showed the merger would result in overall economies for the Company and the customer. Missouri Power & Light Company served approximately 14,000 square miles in the northern half of Missouri. This area was retained as part of Union Electric Regional West.

Mexico presently serves as District Headquarters for the Little Dixie District. There are presently 167 employees in the Little Dixie District, which serves nearly 5,600 square miles.

Union Electric believes that all employees should be interested in communities in which they live and encourages civic participation and civic pride to be evident as we continue to serve our customers with electric and natural gas service.

MOORE, HORTON, CARLSON & COATES, P.C.

The Certified Public Accounting Practice was started January, 1975 by Robert R. Moore with the acquisition of the non-certified accounting, tax and bookkeeping service of Floyd H. Crews, located 1007 W. Monroe, Mexico, Missouri. During the years from 1975 through 1978 the operation was operated as a sole practitioner and for a short period of time as a partnership with another Certified Public Accountant. In January, 1979 Larry D. Horton joined with Robert R. Moore in the acquisition of the Certified Public Accounting Practice of Shirley W. Wagner and Company in Sedalia, Missouri. From 1979 to the present the firm has had continuous growth and on July 1, 1982 acquired the Certified Public Accounting Practice of M. Arthur g in Marshall, Missouri and on December 2, 1985 acquired the Certified Public Accounting Practice of William J. Owsley in Columbia, Missouri. Effective December 1, 1982 Walton F. Carlson was admitted as a member of the firm of Moore Horton & Company, P.C. and effective that date the name

of the firm was changed to Moore Horton & Carlson, P.C. Effective December 2, 1985 Larry D. Coats was admitted as a member of the firm and effective that date the name of the firm was changed to Moore Horton Carlson & Coats, P.C.

The Mexico Office has and continues to serve as the home office for the firm. The firm's computer which processes client monthly service accounts and income tax returns for all offices is located in Mexico. The members of the Mexico office at the present time are as follows: Robert R. Moore, C.P.A.; E. Randall Gruber, C.P.A.; Steven A. Kreyling, C. P. A.; Jan Moore, Degreed Accountant; Debbie Hopke, Degreed Accountant; Lynn L. Stone, Degreed Accountant; Terry L. Mayes, Degreed Accountant; Diane F. Maxwell, Para-Professional; Erma J. Wrye, Secretary; Kathy Jackson, Computer Department Manager; Virginia Todd, Computer Operator; Kelly Hollingsworth, Computer Operator.



Mexico FMGP Audrain County, Missouri SS Reference 4

MEXICO. MISSOURI

PAST AND PRESENT, PROGRESS AND PROSPERITY

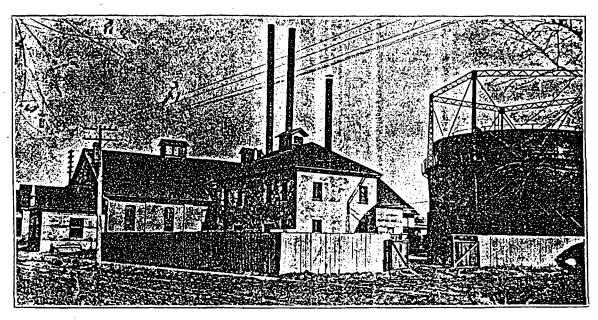
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PROPERY OF AUDRAIN COUNTY AREA GENEALOGICAL SOCIETY

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MEXICO POWER CO'S, PLANT.

MEXICO POWER COMPANY.

One of Mexico's important industries, and one which compares favorably, in both equipment and service rendered the public with similar institions in larger cities, is the above named company, manufacturers of electricity, gas and furnishers of water and steam heat in this city. This well appointed plant, located on Western Avenue, has facilities of the most modern style. A large reservoir is used where the water is clarified and tested. Large electricity making dynamos are used and artificial gas manufactured for fuel purposes. plant is operated by steam and the exhaust is used for heating purposes, having been piped to various districts This heat is furnished at of the city. a nominal cost, lower than the old-style stoves or individual furnaces could be operated for the same degree or number of heat units. company has been operating this plant for a long term of years. In 1910 the firm was incorporated under the name of the Mexico Power Company. The officers are all local business men and the capital invested by them and the stockholders is all home capital. This is largely responsible for the high-class twenty-four-hour service afford-The officers are S. M. Locke, president; E. R. Locke, vice-president and manager; J. J. Steele, secretary and and P. E. Locke, treasurer. These gentlemen are numbered among the public spirited of our citizens and have all been identified with the growth and prosperity of the city for a long term of years.

THE RINGO HOTEL.

Few cities throughout the country can boast of a hotel so perfect in its appointment and so substantial in its general appearance as the Ringo, Mexico's finest hotel. It is admirably situated at the corner of Jefferson and Jackson Streets in the heart of the busy down-town district, having sixty

finely furnished. well ventilated rooms, elegant parlor, reading room, handsomely decorated dining room, etc. The rooms are equipped with electric light, hot and cold running water, telephone service, steam heat, single or in suites, with or without bath. The hotel is conducted strictly the American plan, the rates being \$2.25 to \$3.00 per day. This hotel was built in 1866 and has been under conservative management since that time, all the latest features and equipment have been installed and the place late-. ly furnished, decorated and renovated. The kitchen, dining room and all other departments are under the supervision of courteous and trained employees. The manager of this favorably known and extensively patronized hotel, Mr. Ivan Ashworth, was born in Callaway County in 1875. He is a member of the Masons and Elks.

J. B. EVANS CONSTRUCTION CO.

While only established for three months, a contracting business of unusual proportions has been built up. The business consists of general contracting work, furnishing designs, drawings and estimates for work and material for buildings of any size or character in any section of the country. Mr. Evans superintended the construction of the Audrain County Infirmary and a large number of smaller buildings and residences in this

city and vicinity. He gives employment to an average of seventy-five skilled mechanics and a large force of draftsmen and office assistants. Mr. J. B. Evans, the president and active head of this firm was born in Columbia, Mo., and is a graduate of the Civil Engineering department of the Missouri University. He has been actively engaged in the contracting business for eight years previous to establishing quarters in this city. During this time Mr. Evans has demonstrated what metropolitan ideas coupled with ability and ingenuity can accomplish.

RICKETTS & WHITNEY.

There are few enterprises that contribute more toward the growth and commercial expansion of any community than the real estate, loan and insurance firms. The above named firm with offices at 110 Bast Jackson Street has long been favorably known in this community as real estate brokers of integrity and honesty. They conduct a general real estate business, making exchanges, selling and renting property and negotiating loans, and writing all kinds of insurance. They also have a complete set of abstract books and make a specialty of furnishing abstracts of title to all town lots and farm lands in Audrain County. Both gentlemen are highly esteemed as influential and public spirited business men.



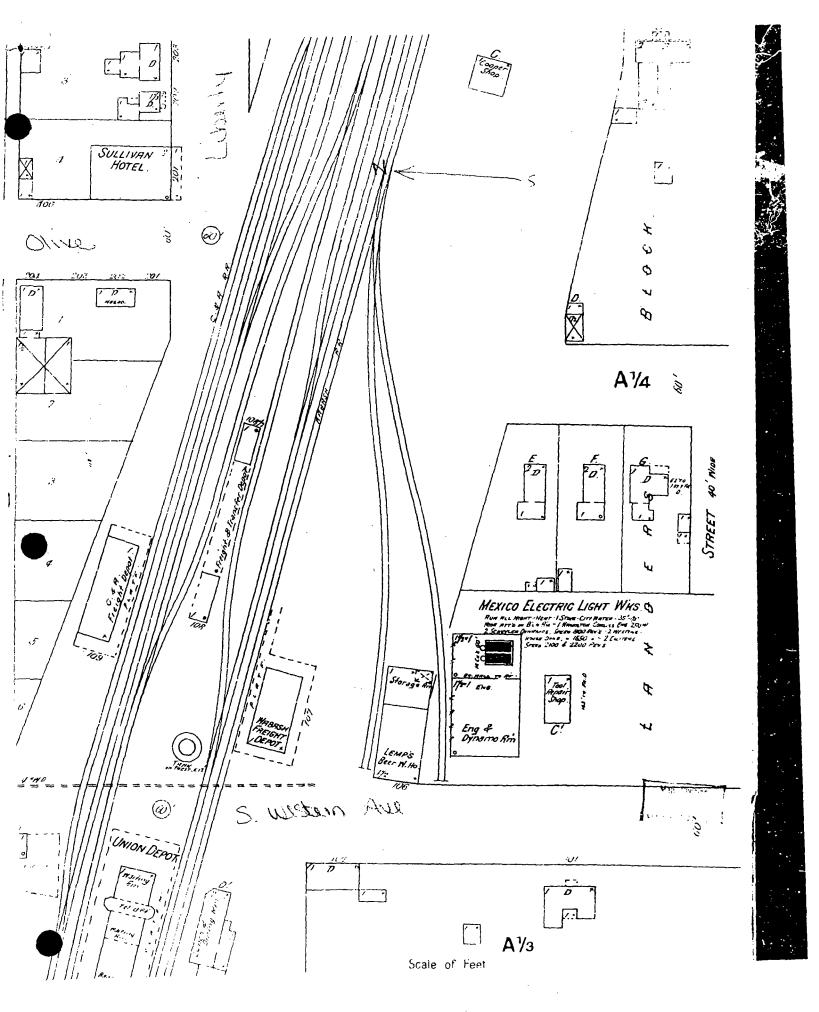
RINGO HOTEL.



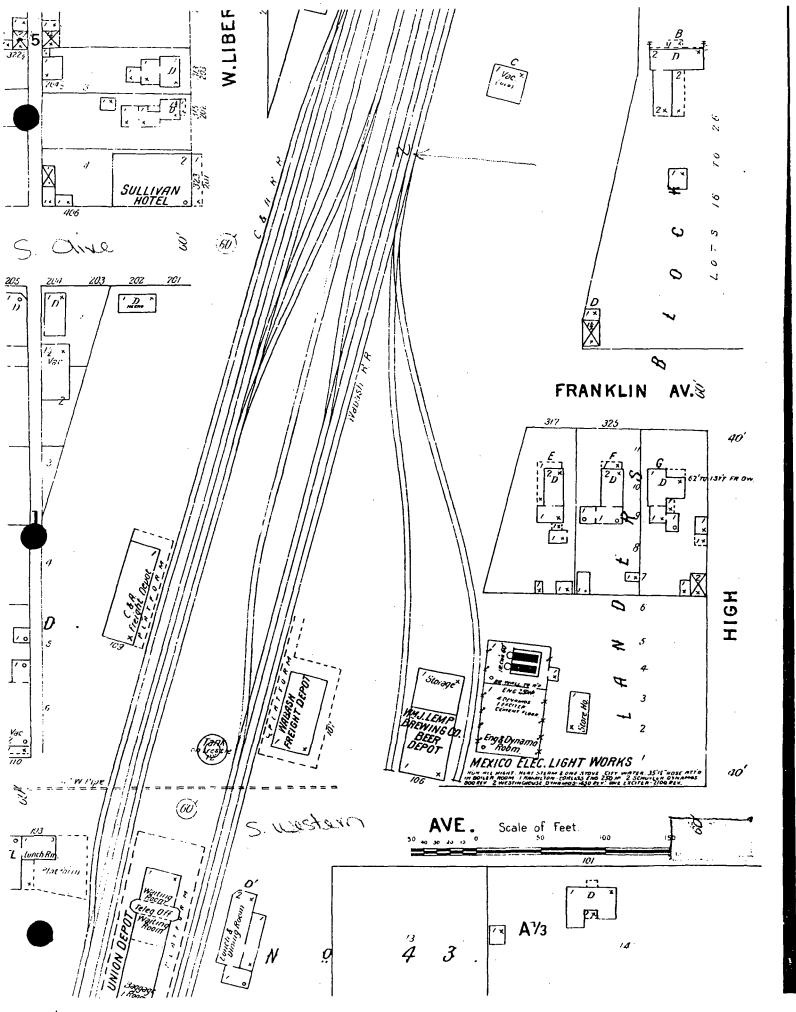
MISSOURI DEPARTMENT OF NATURAL RESOURCES HAZARDOUS WASTE PROGRAM/SUPERFUND SECTION

Desk Top Review Decision Form

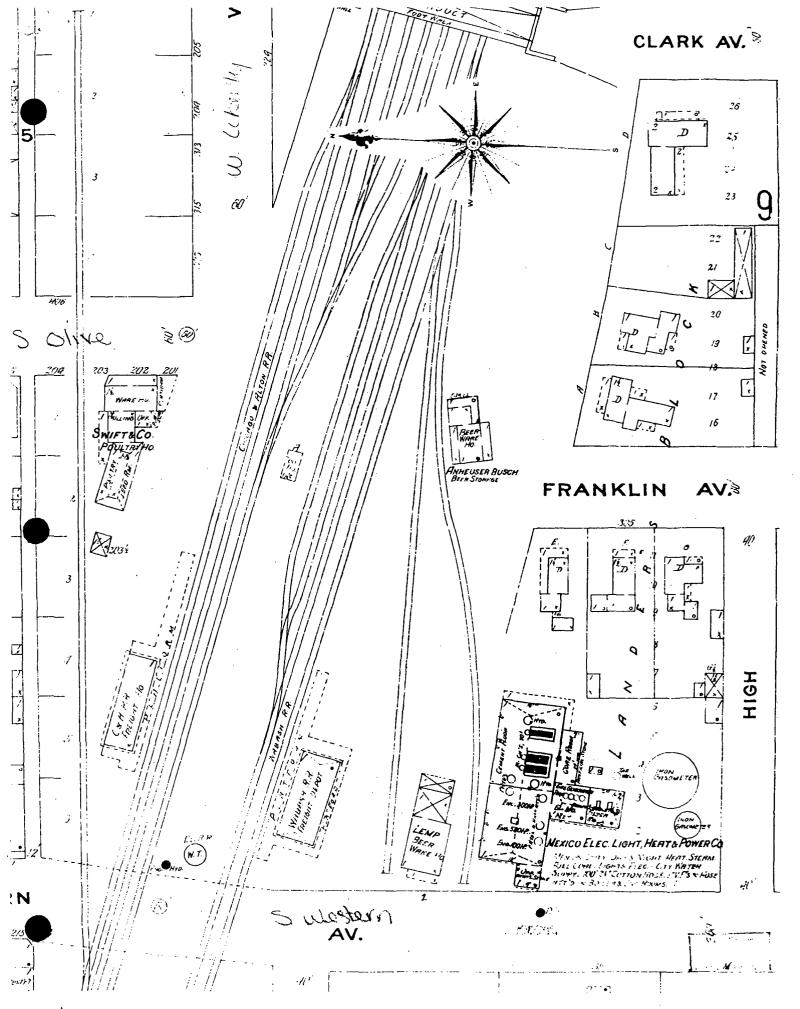
Site Name: Mexico FMGP /Alias(s): "Mexico Electric Light Works" Address/Location: S. Western and High St
City: Mexico County: Audrain State: MO
Site Referred By: NA
Any Previous Private, State, or Federal Investigations or Assessments?
Yes No_ X If yes, what:
DECISION:
(X) 1. Proceed with a Pre-CERCLIS Site Screening to determine CERCLA and /or state eligibility.
() 2. Site CERCLA eligible, proceed with site discovery and further assessment under CERCLA: 2a. Qualifier: () High () Medium () Low 2b. Activity Type: () PA () SI () RSE () ESI () Other:
() 3. Site deferred or being addressed under another state or federal program:
() 4. No Further Assessment Required (NFAR)
DISCUSSION/RATIONALE:
DNR personnel identified former Manufactured Gas Plant (FMGP) structures on 1894, 1899, 1908, 1914, 1926, and 1932 Sanborn Fire Insurance Maps at the above location. The FMGP is labeled "Mexico Electric Light Works", "Mexico Elec. Light, Heat & Power Co.", and "Missouri Light and Power Co.".
Process residuals typically found at FMGP sites include coal tar, coke, clinker, ash, and spent oxides. Additional assessment, including sampling, is necessary to determine if a release into the environment has occurred.
Mexico FMGP Audrain County, Missouri SS Reference 5
Number of Hours to Complete DTR: 2
DTR Conducted by: Kimberlee Foster Signature: Junture: Junture: Date: 449
Site Decision Approved by: Julieann Warren Signature: Julieann Warren Date: 6/4/99



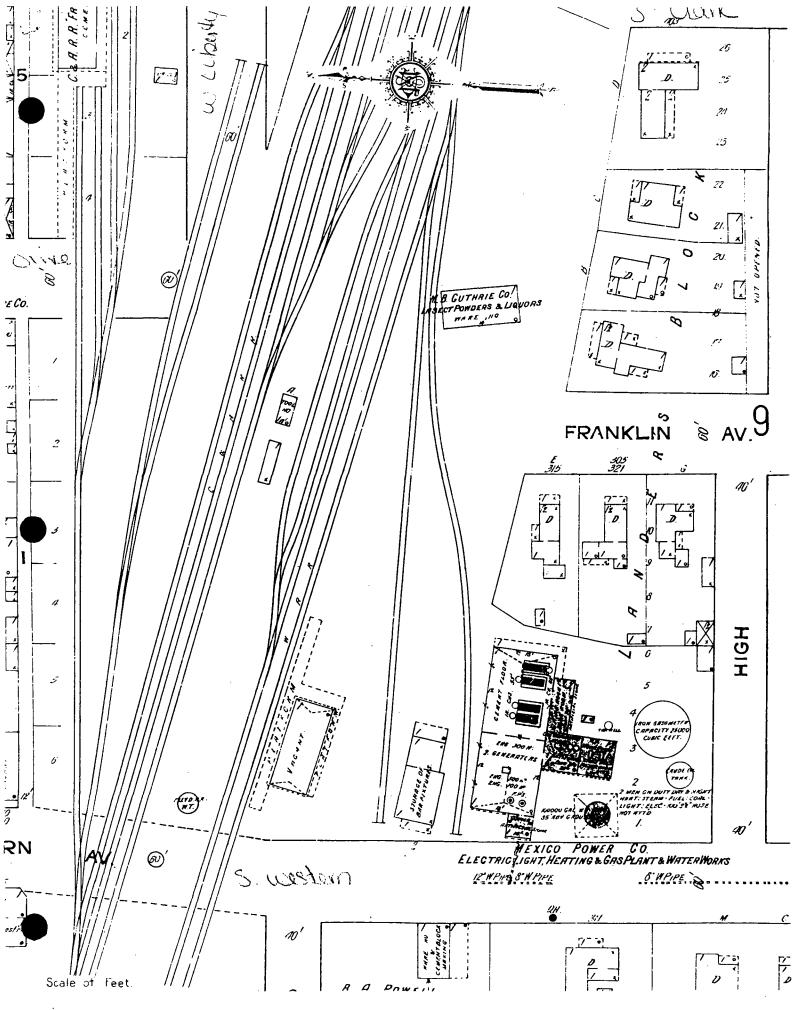
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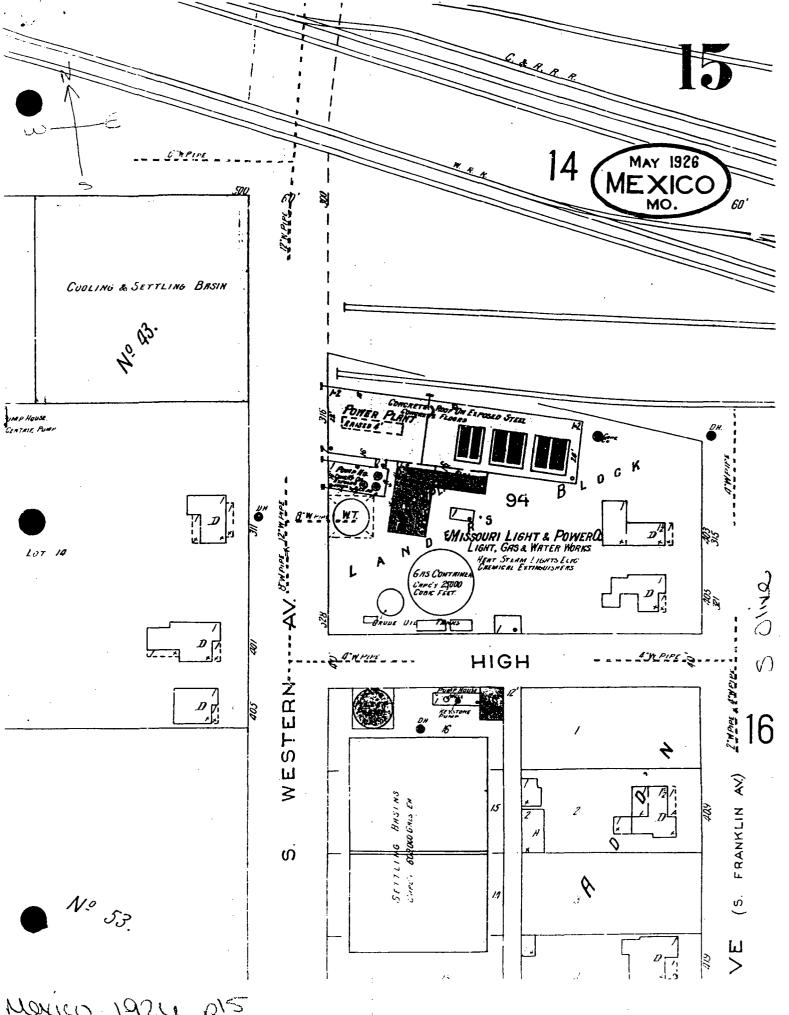
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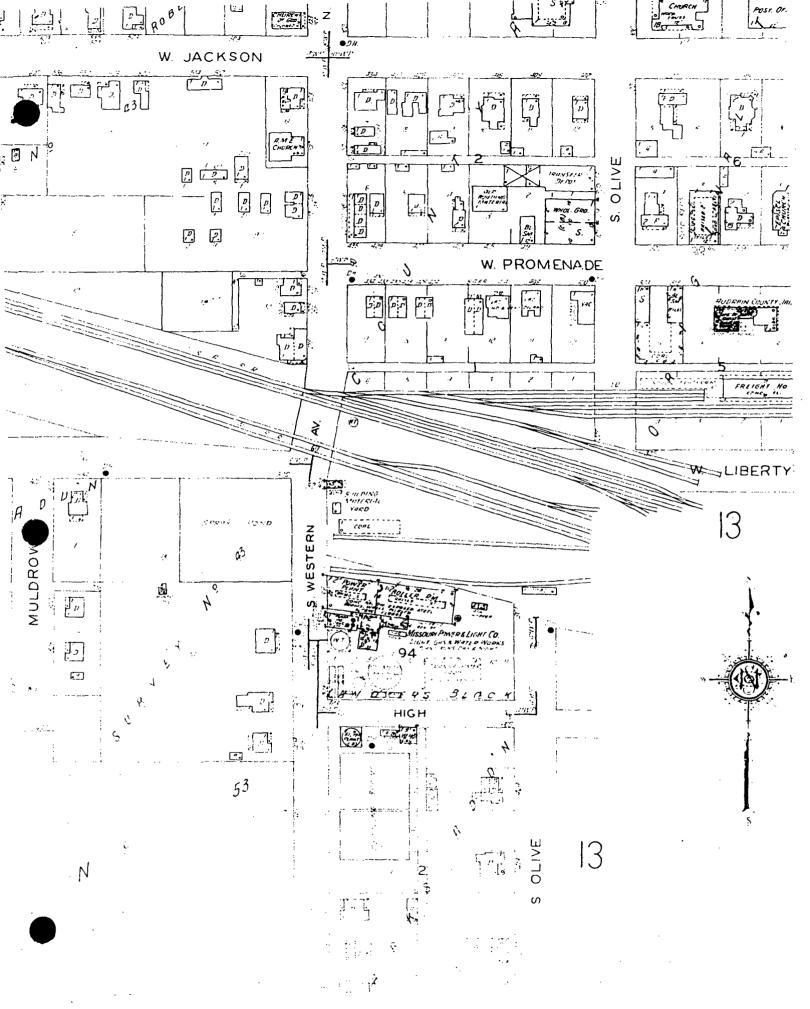
Mexico 1908 plo



Name 1914 pla



Maxico 1924 p15



Nex10 1932 pg

STATE OF MISSOURI

Mel Carnahan, Governor . Stephen M. Mahfood, Director

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102-0176

MEMORANDUM

DATE:

December 28, 1999

TO:

Mexico FMGP Superfund Technical File

FROM:

Julie B. Kelsey, Environmental Specialist

Site Evaluation Unit, Superfund Section

SUBJECT:

Site Reconnaissance on November 23, 1999

On November 23, 1999, Kimberlee Foster and I arrived at the Mexico FMGP site around 10:30 a.m. The day was cloudy and windy, with temperatures in the 50's (°F). The site is located in the center of Mexico, Missouri, near the railroad tracks. To reach the site, take Highway 54 north into Mexico, then travel east for about two blocks to south Western street. Follow south Western north for several blocks until you cross High street and Western ends at the railroad tracks. The gas plant operated south of the railroad tracks. A comparison of historic maps of the plant against present day conditions indicates that the bulk of gas plant operations occurred on property currently owned by Ameren UE located at the northeast intersection of south Western street and High street.

Kimberlee and I met four representatives of Ameren UE at the site. Mark Bryant, our point-of-contact, is from the St. Louis office. Robert Nichols is a senior real estate agent from Ameren UE's Jefferson City office. Clay Taliaferro and Wayne Rutherford work at the local Mexico office. Together, we discussed DNR's upcoming sampling plans for the site. We agreed to meet at 9 a.m. on December 2, 1999, to start the sampling event. I projected that it would take us less than a day, and that we would take five to seven soil samples. Mr. Bryant requested that I send him this information in writing, and I agreed to do so.

The Ameren UE property is roughly square, bounded by the railroad tracks to the north, south Western to the west, High street to the south, and south Olive (formerly south Franklin) along the east. The property is surrounded by a six-foot high chain link fence with three lines of barbed wire at the top. There are two locked gates at the site; one, in the northeast quadrant of the site, opens to south Olive; the other, located in the southwest quadrant, opens to High street. The property is currently used by Ameren UE for storage. There are no regular employees working at the site; however, at the time of our site visit, there was a considerable amount of activity in the area. The Mexico city water plant, located just south of the Ameren UE property, is undergoing a major renovation.

There is an active electrical substation on-site. This portion of the Ameren UE property is enclosed with a separate, internal chain-linked fence. The Ameren UE representatives from Mexico explained that there is a buried grid in this area, a subsurface structure intended to

STATE OF MISSOURI

Mel Carnahan, Governor • Stephen M. Mahfood, Director

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY P.O. Box 176 Jefferson City, MO 65102-0176

MEMORANDUM

DATE:

December 28, 1999

TO:

Mexico FMGP Superfund Technical File

FROM:

Julie B. Kelsey, Environmental Specialist

Site Evaluation Unit, Superfund Section

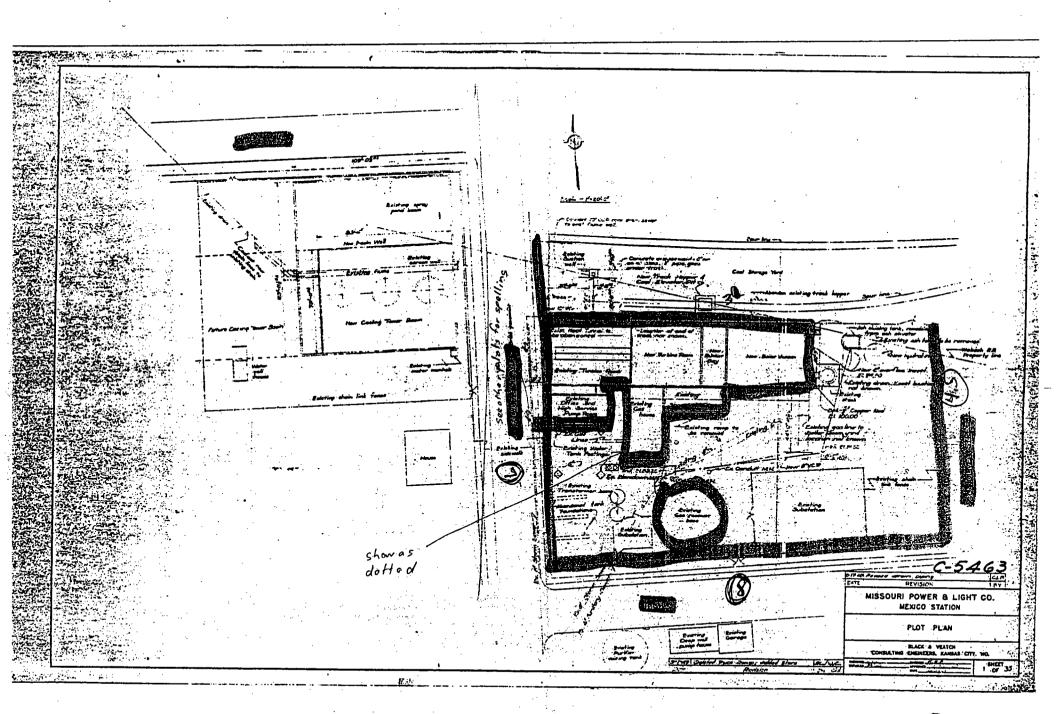
SUBJECT:

Site Sampling on December 2, 1999

On December 2, 1999, I arrived at the Mexico FMGP site around 9:00 a.m. The day was windy and warm, with scattered clouds and temperatures around the 50's °F. The site is located in the center of Mexico, Missouri, near the intersection of south Western and High streets, south of the railroad tracks. Upon arriving at the site, I spoke with a representative responding to my call to 1-800 DIG-RITE, along with a representative of the local Ameren UE facility. Both men indicated that there should be no active buried lines on the property, with the exception of the subsurface structures associated with the substation. Natural gas is piped from the site via a small gray shed on the western boundary of the property that faces south Western street. There may be an old subsurface structure just east of this location. I was warned against sampling along the sidewalks outside of the Ameren UE property, due to existing subsurface lines in these areas.

During my site visit, I took six photographs of the Ameren UE property and the surrounding area. I noted that site drainage appears to flow southwest to follow High street, then flows south for about 100 feet to enter a storm sewer on the western side of south Western street. The bank located on the western side of south Western Street, near the intersection of south Western and High streets, appears to be the closest operating business to the site. The nearest residence is located across High street, just south of the southeast corner of the Ameren UE property.

Brian Allen and Joe Boland, of ESP, and Mark Bryant, from Ameren UE, met me at the site by 10:00 a.m. After Mr. Bryant arrived, he asked me if I had received an old map of the Ameren UE property that he had recently given to Kimberlee Foster, of HWP (attached). I confirmed that I had received the 1949 map of the plant. We used this map to aid in selecting sampling locations. Sampling near the former gas



OR161 Scale 1"=201+

Centennial History

OF

Audrain County

Ву

HERSCHEL SCHOOLEY



THE McINTYRE PUBLISHING COMPANY
Mexico Publishers Missouri

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FIRST EDITION

Printed in the United States of America

THE McINTYRE PUBLISHING CO. FOUNDED IN 1936 BY WARREN O. McINTYRE TO PROMOTE AND PUBLISH HISTORICAL AND EDUCATIONAL BOOKS, A CENTENNIAL HISTORY OF AUDRAIN COUNTY, SCHOOLEY, BEING THE FIRST AND FOLLOWED BY A NEW HISTORY OF MISSOURI AND A HISTORY OF MISSOURI FOR HIGH SCHOOLS. MR. McINTYRE CONTINUES WITH THE MISSOURI PRINTING CO. ESTABLISHED IN 1905 BY HIS FATHER.

THIS BOOK HAS BEEN RE PRINTED 1988 BY THE AUDRAIN COUNTY HISTORICAL SOCIETY, 501 S. MULDROW, MEXICO, MISSOURI 65265.

PRESS OF THE MO. PRTG. & PUB. CO. MEXICO, MISSOURI

BOUND BY
THE BECKTOLD COMPANY
ST. LOUIS. MISSOURI

DEDICATION

This volume is dedicated to the Spirit of Audrain County, composed of courage, enterprise, industry, thrift, vision, and faith, that forms the heritage of its citizens, as bequeathed by the pioneers and founders who carved and builded a permanent and enduring edifice of today, from frontier beginnings.

ancis Joseph Wilkins, Mexico merchant widely known for iness success and progressiveness, has been an Audrain County and member of the business circle in the county seat, since In that year, he came to Mexico from southern Illinois, and hed the department store, which he has operated successnce, under the firm name of Fredendall and Wilkins. For a of a century, he was the occupant of the Harper Building, northeast corner of the courthouse square, but in 1927 he tely remodeled and modernized his own building, across the to the south, and has since occupied it, and it is known hout this northeast Missouri trading section as one of the o be found anywhere. Francis Joseph Wilkins was born on ber 4, 1873, at Broadalbin, N. Y. He was the son of Martin Wilkins, an agriculturalist and teacher of New York state. her and mother, Frances Harriet Peterson Wilkins, both orn near Mayfield, N. Y. He is of English and Dutch anfrom his paternal ancestry, and English, Dutch and Scann by his maternal lineage. His paternal grandparents were and Sarah Knapp Wilkins, of near Mayfield. Mr. Wilkins icated in the public schools of New York, and at Troy Con Academy, Poultney, Vt. He early manifested interest and for mercantile activities, and as a young man, perhaps folhe injunction of the famed New York editor, Horace Gree-'go west, young man, go west," coming first to Illinois, and Mexico and to Audrain County, for his life's activities. As prospered here, he has invested in Mexico real estate, owning store buildings in the downtown district. Since coming to Mr. Wilkins married Miss Frances Brooks, of Mexico, r of John T. and Bee Spence Brooks. Mrs. Brooks has two Miss Martha Spence and Mrs. Robert Arnold, aunts of Mrs. , residing here. Mr. Wilkins is a member of the official f the First Christian Church, of Mexico, of which he is a member, a member of the Board of Directors of the Mexico itional Bank, is a Republican by politics, and is a member 1exico Rotary Club, and the Mexico Country Club. He is ason and Knights Templar.

The Missouri Power and Light Company, ably serving Audrain County communities with public utility services today, is the present day public servant, and successor to earlier local companies, formed with the dawning of the electric age in northern Missouri, in the 1880s. Larger cities began, in that decade, to have their "wonderful arc lamps" for lighting the streets, while smaller towns frequently installed a single dynamo or generator, sometimes in connection with the local milling plant, to supply current for 32candle power lights for streets and stores. In Mexico, the late J. F. Llewellyn, who had sold the first kerosene for coal oil lamps at his drug store, was also the pioneer with the electric light system, establishing the first plant in the basement of his drug store. It came into existence in 1885, and people came for miles around to see the "lights that burned without oil." The use of electric current spread through the years, until at the close of the "pre war" era, two decades ago, the north Missouri territory was served by means of many small generating plants, both privately and municipally owned. This had the handicaps of uncertainty of continuous service, of high cost, and of lack of capacity to care for commercial development in the various communities that were served, and smaller towns and villages many times had no service at all, while electricity on the farm was an almost unheard of thing.

In this decade, of 1910 to 1920, coordination of electric facilities began, to provide improved service at lowered consumer cost. In 1920, the North American Light and Power Company owned a small plant at Kirksville, with a transmission line to LaPlata, and had a plant at Moberly, with a line to Huntsville and Higbee, and aso had a small plant at Boonville. In 1923, the Missouri Power and Light Company was formed, and purchased the Missouri Utilities Company, then owned chiefly by E. R. Locke and Wiley F. Corl, which operated in Mexico, with lines to Auxvasse, Wellsville, Centralia, and other smaller towns in that immediate vicinity. The company was formed as a subsidiary operating company of North American Light and Power Company, and properties of this latter concern, including those in Audrain County, were turned over to it.

Shortly thereafter began the construction of a series of 33,000 volt transmission lines, linking additional properties as they were purchased, and today a constant and adequate supply of electrical energy is provided by connection with the dam over the Mississippi River at Keokuk, Iowa, as well as from several generating stations

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GEORGE ROBERTSON

By David H. Robertson

George Robertson, born lune 2, 1852, in Mahasi Iowa, was the son of Tennessee parents, who shortly birth had removed temporarily to Iowa to take up la by the United States because of the military services of father. Shortly after his birth his parents returned to \ County, Tennessee, the home of his family for several: where he was reared. In 1867 his parents removed peri Randolph County, Missouri and thereafter, until his deico on April 30, 1914, he resided in Randolph and Audra He was of pure Scotch blood. In 1740, his first Amer tor, William Archibald Robertson, his great-great g coming from Ulster County, Ireland, to which his fami grated from the Scottish Highlands several generation settled in what is now York County, Pennsylvania. In liam Archibald Robertson removed to the Scotch settler Brown's Settlement, on the Nollichucky River, in th District, later, in 1777, to become Washington County, I lina and, after 1790, a part of the new Territory that i admitted to the Union as the State of Tennessee. The District was the true birth place of American independent self government and there in that atmosphere of freedo Robertson's descendants continued to live until George came to Missouri in 1867. The next in line, Joseph Robmarried Margaret Derby, was a soldier in the America tion; he served in the North Carolina Line troops an with his brother Thomas, fought at the great victor Mountain. George Robertson, the son of Joseph, w Deborah Register, the daughter of Captain Thomas the Revolutionary Army, was also a soldier in both 1 1812 and in the Black Hawk Indian War. James Register the son of the last named George and the father of the this biography, was born in 1822; he married Margai a member of a Scotch family living in North Carolin Robertson left his home in Randolph County at the aguntil 1875 taught school at the Duly School north of the latter year he began the study of law in the office William O. Forrest, of Mexico, not only a lawyer of ability but a man of extensive classical learning. In 15 admitted to the bar by the Circuit Court of Audrain

over the territory. The company now serves 148 towns in Missouri, including Mexico, Vandalia, Farber, Laddonia, Martinsburg, Rush Hill. Benton City, and Thompson, in Audrain County. In addition, its service is supplied to 3 more through wholesale arrangements, so that at present a total of 151 towns are served, with a population approximating 140,000 people. In its territory, there are about 1400 miles of transmission line owned and operated by the Missouri Power and Light Company. As a result of this unified production, and constantly increased efficiency of facilities, the public has benefited through a series of voluntary reduction in rates, made by the company. In 1925, many towns had a lighting rate of 15 cents a kilowatt hour. Today, the maximum is 10 cents, and the public also enjoys decidedly beneficial and economical rates for electric cooking, refrigeration, and a variety of other home uses. Continuous, adequate service, at lowered rates, has accompanied the growth and development of the company, and its application of principles of mass production and scientific management, under the supervision of the Missouri Public Service Commission, with which the company has cooperated fully for the full protection of the public interests.

Today, from the Mexico district offices, more than 6500 electric customers are served, and more than 80 people are employed by the company in the district. Never has a year passed since 1923, that the company has not added to its equipment, and improved its services. The company also serves the Audrain County area with natural gas, via Panhandle Eastern pipe lines from the Texas fields, serving more than 900 consumers in Mexico alone.

Regardless of drouth or natural conditions, the company also supplies, in Mexico, an adequate water supply, with deep wells and a reservoir lake as an unfailing source of supply. A special softening and chlorinating process renders the supply far superior to that provided the average city of Mexico's size. Since 1925, too, the company has provided pure crystal ice in the Mexico area, purchasing L. B. Hawthorne's Arctic Ice Company and improving its facilities and equipment for production. This plant has a capacity of 30 tons of pure crystal ice daily, and storage facilities for 3700 cakes of ice, weighing 300 pounds each. A central heating plant in Mexico is the final service for consumers in the Audrain county seat. P. C. Ekern has been manager of the Mexico district since 1928, and D. W. Snyder, Jr., of Jefferson City, is president of the Company.

STATE OF MISSOURI

Mel Carnahan, Governor • Stephen M. Mahfood, Director

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY -P.O. Box 176 Jefferson Cirv. MO 65102-0176

October 19, 1999

Mr. Tom Siedhoff Ameren Services Environmental, Safety & Health One Ameren Plaza 1901 Chouteau Avenue PO Box 66149 St. Louis, MO 63166-6149

RE:

Cape Girardeau FMGP

Huntsville FMGP Louisiana FMGP #1 Mexico FMGP

Dear Mr. Siedhoff:

The Missouri Department of Natural Resources' Hazardous Waste Program (HWP) is initiating investigations of the four former manufactured gas plant (FMGP) sites listed above. File information indicates that Ameren UE currently owns these sites. Copies of select Sanborn fire insurance maps are enclosed for your reference. Site related activities, including a reconnaissance and sampling event for each site, are planned for the time period of October 1999 through March 2000. Enclosed, please find a site-specific description of each FMGP, our proposed sampling schedule, and the assigned HWP project manager for each site.

As you know, the assessment of these four sites is part of a statewide effort to locate and evaluate the potential hazards posed by Missouri's FMGP sites. We are also evaluating seven other non-Ameren FMGP sites during this time period. These investigations will be performed by the HWP under a cooperative agreement with the U.S. Environmental Protection Agency.

We are planning to conduct Pre-CERCLIS Site Screenings (SS) for the Huntsville FMGP, Louisiana FMGP #1 and Mexico FMGP. A Site Inspection (SI) is planned for the Cape Girardeau FMGP. As part of our investigations, we will be using subsurface drilling equipment. We will notify DIG RITE in advance of sampling. If you are aware of any additional on-site hazards, or if you would like to split samples, please notify us as soon as possible.

SITE-SPECIFIC INFORMATION AND HWP CONTACTS FOR SELECT AMEREN UE GAS PLANT SITES IN MISSOURI

Burn

Cape Girardeau FMGP (MOD985796085)

Kimberlee Foster

This gas plant operated just south of Sloan's Creek and west of the old Saint Louis and San Francisco Railroad, which is currently within the 900 block of N Main St. in Cape Girardeau. According to our files, Ecology and Environment, Inc. conducted a Preliminary Assessment (PA) of the Cape Girardeau FMGP (also known as the Missouri Utilities FMGP) site in 1991. The PA recommended a Site Inspection due to the potential for subsurface hazardous materials. No analytical samples were taken during the PA investigation. The current policy of the HWP is to collect samples at all FMGP sites being evaluated, in an attempt to prevent accidental exposure to subsurface coal tar contamination.

The HWP would like to conduct a site visit to identify sample locations on November 2-3, 1999 and conduct sampling at the site on November 15-16, 1999. We plan to take several (5-7) subsurface soil borings on or near the property. In addition, we may take surface soil and sediment samples. The samples will likely be analyzed for volatile organic compounds, semi-volatile organic compounds, and cyanide.

Huntsville FMGP

Charlie Cass

This gas plant, formerly known both as the Huntsville Gas Works and the Huntsville Light and Power Co., operated in the western portion of Huntsville, on South Depot Street. Based upon available Sanborn maps, the gas plant operated from 1893 through 1916. At this time, the HWP has not scheduled a date for the site visit or the sampling event.

Louisiana FMGP #1

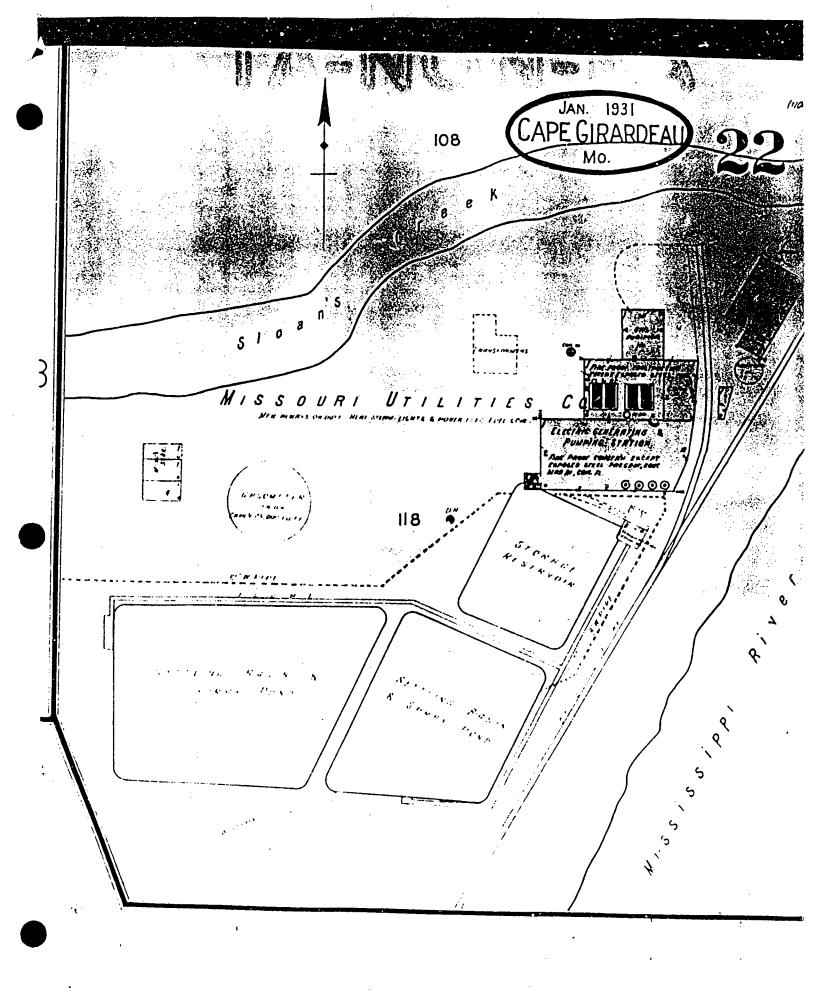
Julieann Warren

Louisiana FMGP #1 was located at South 5th Street and Delaware in the southern portion of the city. The gas plant operated from approximately 1890 to 1931, under the names Carbon Light Co. and Louisiana Light, Power & Traction Co. The HWP has tentatively scheduled site sampling for December 6, 1999. We would like to conduct a site visit prior to sampling. We plan to take several (3-6) subsurface soil borings on or near the property. These soil samples will be analyzed for volatile organic compounds, semi-volatile organic compounds, and cyanide.

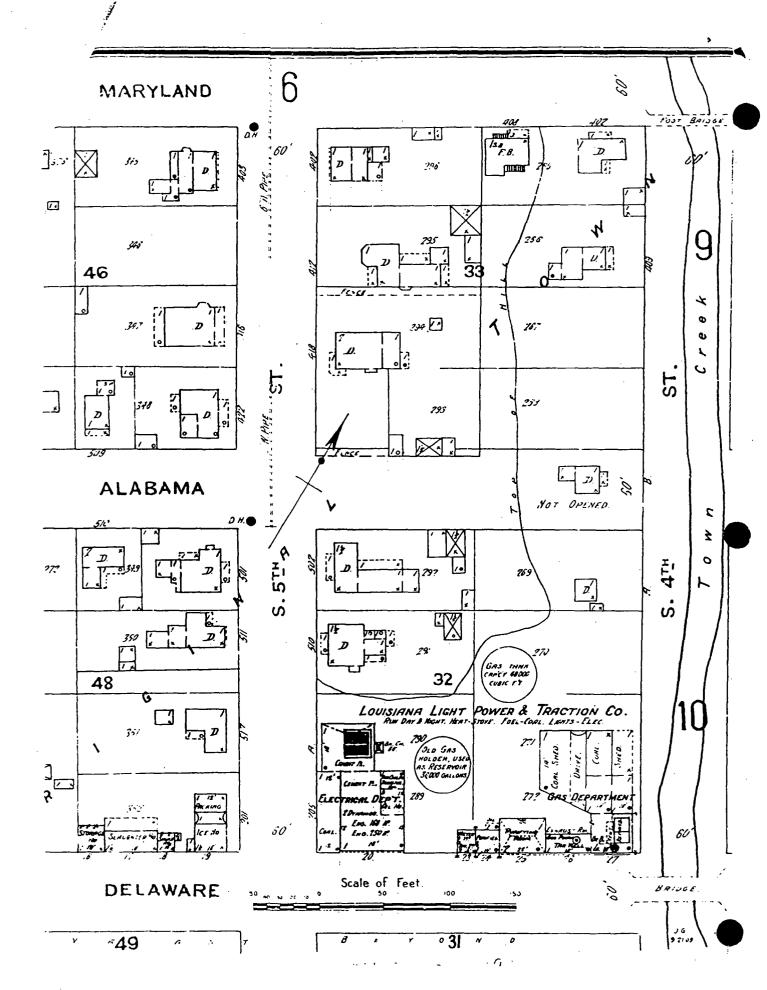
Mexico FMGP

Julie Kelsey

The Mexico gas plant was located north of the intersection of S. Western and High Streets, south of the railroad tracks, in the center of town. Operating under the names Mexico Electric Light Works, Mexico Electric Light, Heat & Power Co., and Missouri Light and Power Co., the gas plant operated from as early as 1894 though 1932. The HWP has tentatively scheduled site sampling for December 2, 1999. We would like to conduct a site visit prior to sampling. We plan to take several (3-6) subsurface soil borings on or near the property. These soil samples will be analyzed for volatile organic compounds, semi-volatile organic compounds, and cyanide.



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